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# The Patenting of Tax Strategies: A Patently Unnecessary Development

Matthew A. Melone\*

*There are few greater stimuli to human ingenuity than the prospect of avoiding fiscal liability. Experience shows that under this stimulus human ingenuity outreaches Parliamentary prescience.*  
Lord Judge Diplock<sup>1</sup>

## I. INTRODUCTION

For quite some time United States' economy has been undergoing a transformation from an industrially based model to a post-industrial economic regime driven by information technologies. The anecdotal evidence of such a transformation is ubiquitous and its principal form is the electronic communication tools by which we do our jobs. The nature of work has been, and continues to be, altered in fundamental and irreversible ways. First, a close nexus exists between an enterprise's use of information and such enterprise's profitability.<sup>2</sup> Second, the elevated role of information in an enterprise's success has caused enterprise managers, for some time now, to pay increasing attention to the importance of knowledge and the effective exploitation of such knowledge.<sup>3</sup>

One consequence of the increasing attention paid to knowledge and information is the heightened importance of intellectual property rights, particularly patents. During the past decade patent law has played an increasingly prominent role in the software industry and has

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1. *Commissioners of Customs & Excise v. Top Ten Promotions Ltd.*, 3 All E.R. 39, 69 (1969).

2. Roger E. Bohn, *Measuring and Managing Technological Knowledge*, 36 SLOAN MGMT. REV. 61, 62 (1994). The author analogizes knowledge to research and development activities and asserts that knowledge is to information what research and development is to product development. *Id.* He provides an eight-stage framework for determining the parameters of knowledge that starts with stage one, complete ignorance, and culminates with stage eight, complete knowledge – a stage the author concludes is unattainable in practice. *Id.* at 62-64.

3. See generally Stanley F. Slater & John C. Narver, *Market Orientation and the Learning Organization*, 59 J. MARKETING 63 (1995); PETER F. DRUCKER, *POST-CAPITALIST SOCIETY* (1993); Rashi Glazer, *Marketing in an Information-Intensive Environment: Strategic Implications of Knowledge as an Asset*, 55 J. MARKETING 1 (1991); PETER M. SENGE, *THE FIFTH DISCIPLINE: THE ART AND PRACTICE OF THE LEARNING ORGANIZATION* (1990); Ray Stata, *Organizational Learning – the Key Management Innovation*, 30 SLOAN MGMT. REV. 63 (1989).

staked a claim for itself in most of the commercial world as a result of patent issuances for business methods. A relatively recent development is the issuance of patents for tax strategies.<sup>4</sup>

Part I of this article provides an overview of patent law subject matter eligibility. This part examines the statutory framework for patent eligibility and the case law interpreting that framework. Also examined is the legal landscape with respect to business method patents, a subclass of which encompasses tax strategy patents. Part II discusses tax strategy patents and presents the argument that patent law has no place in the tax strategy area. This argument is supported principally on utilitarian grounds. The costs associated with the issuance of such patents outweigh the benefits to be gained by such patents. However, a further argument, not rooted in utilitarianism, is that the law should not be considered appropriate subject matter for a patent. This argument recognizes the law as a uniquely public good that belongs to the commons.

I come to this issue from the standpoint of a tax lawyer. Perhaps a patent lawyer views the world through a different prism. However, instinctively, as a lawyer, the notion that proprietary rights can exist with respect to the law itself is deeply unsettling. I am fairly certain that the issuance of patents covering methods of doing business has proven just as unsettling to many businesspersons as has the issuance of software patents to software developers. That said, tax law, as patentable subject matter, presents unique issues that warrant the carve-out of a categorical exception to subject matter eligibility.

## II. PATENT LAW

### A. *In General*

#### 1. Policy and the Law

A system of free enterprise underpins the economy of the United States. Many supporters of free enterprise dispense with the niceties of utilitarian calculations and consider such a system desirable for its own sake. To a degree, free enterprise implicates notions of individual liberty and, to that extent, perhaps support of a system of free enterprise may be rooted in something more than utilitarian calculation. For the most part, however, free enterprise is desirable because of what such a system can yield for society, namely a higher standard of living. The innovation and concomitant increases in productivity that are generated by a system of free enterprise outweigh the costs inher-

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4. Floyd Norris, *You Can't Use That Tax Idea. It's Patented*, N.Y. TIMES, Oct. 20, 2006, at C1.

ent in such a system, including the opportunity costs associated with foregoing alternative forms of ordering resources. The current standard of living in the United States would be incomprehensible to a person born in the eighteenth century.

Competition fosters innovation. Anticompetitive behavior is policed by robust antitrust enforcement. Patent policy is rooted in utilitarianism and shares the same objective with antitrust policy—the promotion of consumer welfare over time.<sup>5</sup> Antitrust and patent laws “are complementary efforts to promote an efficient marketplace and long-run, dynamic competition through innovation.”<sup>6</sup> Despite the occasional resort to Lockean notions of property rights and other non-utilitarian justifications, patent law is designed to create an environment in which innovation can flourish.<sup>7</sup>

The exclusivity to make, sell, and use an invention for a period of time provides encouragement to inventors to undertake the expenditure of time and money necessary to develop ideas into inventions. This encouragement is necessary because free rider problems are acute with intellectual property. Unlike tangible property, intellectual property is non-rivalrous. One person’s use of such property does not inhibit the ability of others to use the same property. Misappropriation is difficult to prevent and, as a consequence, inventors’ incentives to invest are diminished.<sup>8</sup> The right to exclude others carries with it a corresponding obligation of disclosure. The patent holder must, among other disclosure requirements, disclose the invention in a man-

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5. See TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, 7 (F.T.C. Oct. 2003) [*hereinafter* F.T.C. Report]. Encouragement of innovation is not limited to antitrust and patent law. Federal tax policy, for example, also promotes innovation. See, e.g., I.R.C. § 41 (2006) (providing an income tax credit for research and development activities); I.R.C. § 45C (2006) (providing an income tax credit for clinical testing for certain drugs to treat rare diseases or conditions); I.R.C. § 174 (2006) (allowing a deduction for research and experimentation expenditures).

6. See *id.* (quoting 1 HERBERT HOVENKAMP ET AL., IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW § 13 (2002)). See F.T.C. Report, *supra* note 5, at 14-23 for a historical analysis of the coexistence of patent and antitrust law. Antitrust concerns may be raised by the methods by which patent holders employ their patents. For example, conditioning the grant of a license to a licensee’s promise to purchase non-patented products from the patent holder may violate antitrust laws as may the refusal, in certain circumstances, by a patent holder to grant a license. See Janice M. Mueller, *Patent Misuse Through the Capture of Industry Standards*, 17 BERKELEY TECH. L.J. 623, 673-82 (2002).

7. See Nari Lee, *Patent Eligible Subject Matter Reconfiguration and the Emergence of Proprietary Norms – The Patent Eligibility of Business Methods*, 45 IDEA 321, 352-54 (2005).

8. See, e.g., Samuel A. Oddi, *Un-Unified Economic Theories of Patents – The Not-Quite-Holy-Grail*, 71 NOTRE DAME L. REV. 267 (1996); Edmund Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977); ROGER E. SCHECTER & JOHN R. THOMAS, INTELLECTUAL PROPERTY: THE LAW OF COPYRIGHTS, PATENTS, AND TRADEMARK 288 (2003).

ner such that a person skilled in the art in question can make and use the invention without undergoing significant experimentation.<sup>9</sup>

There are costs associated with the patent system. Although patent and antitrust law share objectives, their respective approaches in attaining their objectives differ markedly. Antitrust is "concerned about conduct that in the short term may be benign or helpful to consumers, but that may be harmful in the long run, whereas in the patent regime we tolerate immediate consumer harm . . . in the expectation that it in the long run it will benefit consumers. . . ."<sup>10</sup>

Exclusive property rights can lead to suboptimal use of the property. Knowledge creation may be stifled if the holders of exclusive rights behave opportunistically and non-cooperatively – what one scholar has termed the Hobbes theorem.<sup>11</sup> Moreover, exclusivity grants a monopoly to the patent holder and, in general, monopolists produce sub-optimal output in comparison to the output that would have been produced in a competitive market.<sup>12</sup> Patents have also been criticized as an infringement on economic liberty.<sup>13</sup>

Substantive limits on patent protection are meant to ensure that the costs associated with patents do not outweigh their benefits. "From their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition

9. 35 U.S.C. § 112 (2000). *See also* J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l., Inc., 534 U.S. 124, 142 (2001) (citing *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 484 (1974) in terming the disclosure requirement as the "quid pro quo" of the right to exclude). The patent must also describe the claims made by the inventor, the manner and process if making and using the invention, and the best mode known to the inventor for carrying out the invention. *See* 35 U.S.C. §§ 111-112 (2000).

10. F.T.C Report, *supra* note 5, at 7 n.46 (quoting Thomas B. Leary's remarks during the A.B.A. Section of Antitrust Law Program in Philadelphia, Pa. on May 3, 2001). For example, Microsoft Corporation's long running antitrust battle with the Justice Dept. involved, among other issues, the bundling of software features within the Windows operating system. Arguably, in the short run, consumers benefited from the convenience offered by such bundling. In the long run, however, Microsoft's domination of the market for operating systems could have resulted in its similar domination of markets for other software resulting in higher prices for consumers and less product choice.

11. *See* Lee, *supra* note 7, at 355. This theorem stands in contrast to the famous Coase theorem under which one could expect bargaining to take place leading to the commercialization of patented subject matter. Patent holders often engage in behavior that may be considered Hobbesian. Patent hold-ups can occur when a patent holder extracts a high price for granting a license to a licensee that has significant sunk costs whose utility depends on obtaining a license. Patent holders may also build fences to prevent entry into a market. *See generally* F.T.C. Report, *supra* note 5, at 28-35.

12. *See infra* notes 168-73 and accompanying text.

13. *See* Jay Dratler, Jr., *Alice in Wonderland Meets the U.S. Patent System*, 38 AKRON L. REV. 299, 302-04 (2005). Others argue that patents do not restrict individual liberty because the liberty related to the use of an invention would not have existed without the invention. *See* Lee, *supra* note 7, at 353 n.127 (citing ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 181-82 (1974)).

that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.”<sup>14</sup>

The Constitution authorizes Congress “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”<sup>15</sup> The first patent legislation was enacted in 1790 and the current statutory scheme is the result of the Patent Act of 1952.<sup>16</sup> The United States, in contrast to other countries, grants patents under a first-to-invent standard rather than under a first-to-file standard.<sup>17</sup> The law encourages rapid filings by inventors because a patent will not be granted if the invention was described in a printed publication, in public use, or on sale in the United States more than one year prior to the date of application.<sup>18</sup> This provision will cause inventors to carefully consider the commercial advantages of deploying their invention in secret versus the possibility that patent protection may become unavailable.<sup>19</sup>

In general, patent applications must be published after the expiration of a period of 18 months from the earliest filing date for which a benefit is sought.<sup>20</sup> However, an applicant may opt out of this requirement by certifying that the invention disclosed in the application has not, and will not, be the subject of an application in another country or under a multilateral agreement that requires publication 18 months after filing.<sup>21</sup> A utility patent is granted for a term that begins on the date on which the patent is issued and ends twenty years from the date on which the application was filed.<sup>22</sup> Once issued, a patent

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14. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989).

15. U.S. CONST. Art. I, § 8, cl. 8.

16. Pub. L. No. 82-593, 66 Stat. 792 (1952). The original patent legislation broadened subject matter eligibility when compared to the English Statute of Monopolies of 1623. The latter legislation extended patent protection only to manufactures. The industrial revolution led to ever expanding notions of what was patentable subject matter. See John R. Thomas, *The Patenting of the Liberal Professions*, 40 B.C. L. REV. 1139, 1143-44 (1999).

17. See 35 U.S.C. § 102(g) (2000).

18. 35 U.S.C. § 102 (b) (2000).

19. The First Inventor Defense Act of 1999, Pub. L. No. 106-113, 113 Stat. 1536 (1999) (adding prior user rights as a defense to a patent infringement claim). However, this defense is only available in the context of business methods patents. See *infra* notes 104-08 and accompanying text.

20. 35 U.S.C. § 122(b)(1)(A) (2000).

21. 35 U.S.C. § 122(b)(2)(B)(i) (2000). An applicant may choose to publish patent applications despite the fact that foreign patent protection will not be sought because liability for infringement will be accelerated to the date of publication. See 35 U.S.C. § 154(d) (Supp. 2004).

22. 35 U.S.C. § 154(a)(2) (2000). Maintenance fees are required to be paid three and one-half years, seven and one-half years, and eleven and one half years after issuance. See 37 C.F.R. § 1.20(e)-(g) (2005). See also U.S. Patent & Trademark Office, FY 2007 Fee Schedule, available at <http://www.uspto.gov/web/offices/ac/qs/ope/> (last modified on Feb. 1, 2007). Extensions of a

carries a presumption of validity that may be overcome by clear and convincing evidence of invalidity.<sup>23</sup>

## 2. Patentable Subject Matter

Under current law patentable subject matter is comprised of “any new and useful process, machine, manufacture, or composition of matter.”<sup>24</sup> The term “process” is defined as any “process, art or method” and includes a new use of a known process, machine, manufacture, or composition of matter or material.<sup>25</sup> The Supreme Court has interpreted the statute broadly based on its understanding of its legislative history from which it gleaned Congress’ intent to “include anything under the sun that is made by man.”<sup>26</sup> The Federal Courts Improvement Act of 1982 created the Court of Appeals for the Federal Circuit.<sup>27</sup> This court, which has exclusive jurisdiction of all appeals from district court decisions involving patent legislation, has also

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patent’s term are provided for in the case of certain administrative delays. *See generally* 35 U.S.C. § 154(b) (2000). The present term was enacted in 1995 to meet the obligations of the Agreement on Trade-Related Aspects of Intellectual Property Rights, commonly known as TRIPs. *See* LEE BURGUNDER, *LEGAL ASPECTS OF MANAGING TECHNOLOGY* 46-47 (3d ed. 2004). The United States is a party to various multilateral agreements that implicate intellectual property. These agreements, with respect to patents, generally deal with procedural issues or require that citizens of signatory countries receive national treatment, or reciprocal rights, under the laws of each signatory country. *See id.* at 39-41. Previously, the term of a utility patent was 17 years beginning on the date of grant. Design patents, issued for inventions of new, original, and ornamental designs of an article of manufacture, have terms of 14 years commencing on the date of issue. 35 U.S.C. §§ 171, 173 (2000).

23. 35 U.S.C. § 282 (2000); *Nystrom v. Trex Co.*, 424 F.3d 1136, 1149 (Fed. Cir. 2005). A patent does not confer rights to use an invention but to exclude others from doing so. Non-patent related legal and requirements, if applicable, must be met. The patent process does not consider such requirements. *See, e.g., Juicy Whip, Inc. v. Orange Bang, Inc.*, 185 F.3d 1364 (Fed. Cir. 1999) (reversing the district’s court invalidation of a patent and holding that whether an invention may prove deceptive is a determination best left to others, such as the Federal Trade Commission and the Food and Drug Administration).

24. 35 U.S.C. § 101 (2000).

25. 35 U.S.C. § 100(b) (2000).

26. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980); *Diamond v. Diehr*, 450 U.S. 175, 182 (1981).

27. Pub. L. No. 97-164, 96 Stat. 25 (1982). Prior to the creation of the Court of Appeals for the Federal Circuit appellate jurisdiction in patent cases resided in several courts. Appeals of judgments regarding alleged infringement by the United States were made to the Court of Claims. Final judgments of the Patent and Trademark Office and the International Trade Commission were taken to the Court of Customs and Patent Appeals. The International Trade Commission rendered decisions regarding the importation of products that allegedly infringed upon patents. The regional appeals courts heard appeals of district court judgments involving infringement actions against private litigants. For a historical account of various patent forums see Elizabeth I. Rogers, *The Phoenix Precedents: The Unexpected Rebirth of Regional Circuit Jurisdiction Over Patent Appeals and the Need for a Considered Congressional Response*, 16 HARV. J.L. & TECH. 411, 437 (2003).

served to broaden patent protection.<sup>28</sup> Laws of nature, natural phenomenon, and abstract ideas are not patentable preventing, among other things, the patenting of algorithms and scientific truths and, for a time, business methods.<sup>29</sup> However, the application of a law of nature or mathematical formula may, in appropriate circumstances, be patent eligible.<sup>30</sup>

In addition to the subject matter eligibility requirements other statutory tests must be met in order to ensure the validity of a specific patent. The most critical requirements that focus on the subject matter of the invention are utility, novelty, and nonobviousness.<sup>31</sup> Inventions, to qualify for patent protection, must be useful.<sup>32</sup> An invention is useful if a person having ordinary skill in the art would recognize that the invention would perform its articulated functions.<sup>33</sup> Moreover, the utility of the invention, as asserted by the applicant, must be specific and credible. These requirements force an applicant to designate a specific function that the invention performs and demonstrate its utility in a practical setting.<sup>34</sup>

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28. 28 U.S.C. § 1295 (2000). See F.T.C. Report, *supra* note 5, at 20-21. See also Maureen A. O'Rourke & Joseph F. Brodley, *Antitrust Implications of Patent Settlements: An Incentives Modifying Approach* 1 n.3 (Boston Univ. School of Law Working Paper Series, Law and Economics, Working Paper No. 03-08, 2003) available at <http://www.bu.edu/law/faculty/scholarship/workingpapers/abstracts/2003/ORourkeM&BrodleyJ042903abstract.html> (providing cites to several surveys that estimated the percentage of patents held invalid by various courts over various time periods); *infra* notes 48-50 and accompanying text (discussing the Federal Circuit's test for nonobviousness that has had the effect of broadening patent protection for inventions that consisted of combination of elements that existed in the prior art). The Federal Circuit has exclusive jurisdiction over appeals from final decisions of district courts, if the district court jurisdiction was based, in whole or in part, on section 1338. 28 U.S.C. § 1295(a)(1) (2000). Section 1338 confers original jurisdiction to the district courts of any civil action arising under any Act of Congress relating to patents. 28 U.S.C. § 1338(a) (2000). The Supreme Court has interpreted 28 U.S.C. § 1295 to deny Federal Circuit court jurisdiction in cases where the plaintiff alleged no patent claim and the patent issue arose out of a defendant's compulsory counterclaim. See *Holmes Group, Inc. v. Vornado Air Circulation Sys., Inc.* 535 U.S. 826, 829 (2002).

29. See *Diamond*, 450 U.S. at 185. See also *Gottschalk v. Benson*, 409 U.S. 63 (1972) (invalidating a patent that involved a method of converting binary-coded decimal numerals into pure binary numbers because the process did transform one thing into another tangible result and that an idea is merely an abstract concept that is not patentable). For a discussion of the business method exception and its eventual demise see *infra* notes 66-85 and accompanying text.

30. *Diamond*, 450 U.S. at 186-87.

31. Patent applications must also meet disclosure requirements imposed pursuant to 35 U.S.C. § 112 (2000). In general, an applicant must describe the invention so that persons skilled in the art are able to reduce the invention to practice without undue experimentation, set forth distinct and definite claims that set out the proprietary interest asserted by the applicant, and set forth the best mode contemplated by the inventor of carrying out the invention.

32. 35 U.S.C. § 101 (2000).

33. U.S. Patent & Trademark Office, Revised Interim Utility Guidelines Training Material 5, available at <http://www.uspto.gov/web/menu/utility.pdf> (last visited on Apr. 9, 2007).

34. *Id.*



The principle that patent protection is reserved for new innovation is manifested in the novelty requirement. Several statutory tests are set forth including whether the invention was known or used by others in the United States or patented or described in a printed publication in the United States or a foreign country before it was invented by the applicant.<sup>35</sup> Moreover, a patent application may not be filed more than one year from the date the invention was patented or described in a printed publication in the United States or a foreign country or in public use or on sale in the United States.<sup>36</sup> This requirement prevents an inventor from intentionally delaying the beginning of the patent term without foregoing the commercial exploitation of the invention. Inventors are under no duty to apply for a patent. However, by selling the product or service that embodies the invention they may forfeit patent protection. Moreover, patent protection may be denied to others because a patent will not be issued if another inventor previously and independently conceived of the invention and, without having abandoned, suppressed, or concealed the invention, reduced it to practice.<sup>37</sup>

Not all things new, however, merit patent protection. In addition to the standards of novelty an invention must also be non-obvious. This requirement demarcates "a line between the things that are worth the public embarrassment of an exclusive patent, and those which are not."<sup>38</sup> The Supreme Court established the non-obvious requirement in 1851 by holding that a patent requires more skill and ingenuity than that of "an ordinary mechanic acquainted with the business."<sup>39</sup> This requirement, codified in Section 103, provides that a patent may not

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35. 35 U.S.C. § 102(a) (2000). A patent application may not be filed more than one year from the date of a publication in any country disclosing the invention or public use of the invention. *Id.* Exceptions are made for certain experimental uses of an invention. *See generally* Allen Eng'g v. Bartell Indus. Inc., 299 F.3d 1336, 1353 (Fed. Cir. 2002).

36. 35 U.S.C. § 102(b) (2000). The Supreme Court has interpreted this provision liberally and held that the one year time period begins to run when a product is the subject of a commercial offer for sale and is ready for patenting. *See* Pfaff v. Wells Elecs., Inc., 525 U.S. 55 (1998).

37. 35 U.S.C. § 102(g) (2000). *See also* Dow Chem. Co. v. Astro-Valcour, Inc., 267 F.3d 1334 (Fed. Cir. 2001) (denying the validity of a patent because an earlier inventor undertook continuous efforts to commercialize the invention); Dunlop Holdings Ltd. v. Ram Golf Corp., 524 F.2d 33 (7th Cir. 1975) (holding that the marketing and sale of golf balls without disclosure of a particular ingredient used in their manufacture did not amount to suppression or concealment). A patent will not be issued for an invention on which the inventor had abandoned her intention to obtain a patent. 35 U.S.C. § 102(c). These provisions highlight the risk that inventors incur by foregoing patent protection and, instead, preserving, or attempting to preserve, trade secret protection.

38. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.* 489 U.S. 141, 148 (1989) (quoting Thomas Jefferson).

39. *Hotchkiss v. Greenwood*, 52 U.S. 248, 267 (1951).

be obtained "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art . . . ." <sup>40</sup> Unlike the novelty standards this standard is less formulaic and more opaque and, accordingly, has generated a significant amount of case law. <sup>41</sup> The standards applied in determining non-obviousness can have significant effects on innovation. Overly restrictive standards may enhance an initial inventor's market dominance. Alternatively, lax standards may result in the proliferation of trivial patents, increased transaction costs, and diminished incentives to innovate.

The review for non-obviousness is fact-intensive and requires a thorough examination of prior art references. In *Graham v. John Deere Co.*, <sup>42</sup> the Supreme Court, interpreting section 103, held that a three-part analysis is required in ascertaining whether a particular invention was non-obvious. First, the scope and content of prior art are to be ascertained. <sup>43</sup> In general, prior art is documentary evidence in the form of other patents and publications. <sup>44</sup> Second, differences between the invention and prior art are to be identified. <sup>45</sup> Finally, the level of ordinary skill in the relevant art is to be determined. <sup>46</sup> The Court also held that, in appropriate situations, secondary considerations, such as commercial success, the failures of others, and long unmet needs, may be relevant to a determination of non-obviousness. <sup>47</sup>

Many inventions contain elements that exist in various prior art references. The non-obviousness requirement is particularly troublesome when the invention at issue results from the combination of

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40. 35 U.S.C. § 103(a) (2000).

41. See generally Jean F. Rydstrom, Annotation, *Application, and Effect of 35 U.S.C.A. 103, Requiring Nonobvious Subject Matter in Determining Validity of Patents*, 23 A.L.R. FED. 326 (2004).

42. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

43. *Id.* at 17.

44. Prior art references may also include affidavits and testimony. See *Sakraisa v. Ag Pro Inc.*, 425 U.S. 273, 280 (1976).

45. *Graham*, 383 U.S. at 17.

46. *Id.*

47. *Id.* at 17-18. The Federal Circuit has used these secondary considerations as objective factors that may override determinations based solely on prior art considerations and must be considered before a conclusion is reached. These factors are not to be treated as "icing on the cake." *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1380 (Fed. Cir. 1996). The use of the commercial success of an invention as a proxy for non-obviousness is subject to the criticism that such commercial success is not necessarily attributable to a non-obvious innovation but may be explained by other factors such as good marketing. See, e.g., Robert P. Merges, *Commercial Success and Patent Standards: Economic Perspectives on Innovation*, 76 CAL. L. REV. 805 (1988); Note, *Subtests of "Nonobviousness": A Nontechnical Approach to Patent Validity*, 112 U. PA. L. REV. 1169 (1964).

existing products or inventions. In an effort to prevent undue influence from the benefit of hindsight, the Federal Circuit has articulated a test that makes a finding of obviousness more difficult in such cases. Under this test, the fact that separate elements of an invention existed in the prior art is insufficient to establish obviousness in the absence of "some teaching or suggestion, in the prior art, to combine the elements."<sup>48</sup> Applying this test, commonly known as the "teaching-suggestion-motivation test," the Federal Circuit has, on several occasions, overturned findings of obviousness by the Patent and Trademark Office.<sup>49</sup> This test has proved to be controversial. Critics assert that this test amounts to the creation of an entitlement to patent protection. Proponents of the test counter that it is necessary because, in hindsight, everything appears to be obvious. The Supreme Court agreed to join the debate by granting certiorari in *KSR Int'l. Co. v. Teleflex Inc.*<sup>50</sup>

In a unanimous decision likely to have significant implications with respect to the granting of business method patents, the Supreme Court has strengthened the obviousness requirement by holding that the Federal Circuit's inquiry into the obviousness of an invention was too narrow as a result of its application of the teaching-suggestion-motivation test.<sup>51</sup> The Court stated that one of the ways in which a patent's subject matter can be proved obvious is by noting that that the invention encompassed an obvious solution to a known problem. The Court did not categorically reject the use of the teaching-suggestion-motivation test, but instead found several errors with the Federal Circuit's use of the teaching-suggestion-motivation test in determining that an invention was obvious.

First, the Federal Circuit examined only the problem the patentee was attempting to solve. The Court held that any need or problem known in the field of endeavor and addressed by the patent can provide a reason for combining elements.<sup>52</sup> Second, the Federal Circuit erroneously assumed that a person of ordinary skill will be led only to those elements of prior art designed to solve the same problem. A

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48. *Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 954, 957 (Fed. Cir. 1997).

49. See, e.g., *In re Sang-Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002); *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999). For a more general discussion of the favorable climate for patent validity created by the Federal Circuit see Gerald Sobel, *The Court of Appeals for the Federal Circuit: A Fifth Anniversary Look at its Impact on Patent Law and Litigation*, 37 AM. U. L. REV. 1087, 1089 (1988).

50. *KSR Int'l Co. v. Teleflex Inc.*, 126 S.Ct. 2965 (2006).

51. *KSR Int'l Co. v. Teleflex Inc.*, 2007 U.S. LEXIS 4745, at \*39 (2007). The Court's holding will also have broad ramifications in fields of endeavor where innovation is often incremental, such as software.

52. *Id.* at \*40.

person of ordinary skill is not an “automaton” and, therefore, would not be so limited and would “be able to fit teachings of multiple patents together like pieces of a puzzle.”<sup>53</sup> Third, the Federal Circuit erroneously concluded that a patent claim may not be proved obvious merely by showing that the combination of elements was “obvious to try.”<sup>54</sup> The Court held that market pressures to solve a problem and the existence of a finite number of identified, predictable solutions will provide a good reason for persons of ordinary skill to pursue options.<sup>55</sup> It is likely that any attained success that results from such efforts is attributable to ordinary skill and common sense and not innovation.<sup>56</sup> Finally, the Court held the risk of hindsight bias does not justify the application of rigid rules that deny the application of common sense.<sup>57</sup>

### B. *Business Method Patents*

The notion that patentable inventions have a physical manifestation has been long-standing, predating the founding of the United States.<sup>58</sup> Nineteenth century courts consistently required the presence of some “physical tangible facility” for implementing a process or some physical result as the output of a process.<sup>59</sup> Although the Patent Act of 1952 extended patent protection to processes subject matter eligibility continued to depend, to a great extent, on some sort of physical manifestation. Algorithms, mental steps, and the like were viewed as abstract ideas, not patentable *per se*. As one leading scholar noted:

The requirement of physical instantiation is not an illogical one. It ties the relatively abstract proprietary interests created by patent law to the corporeal things that form the traditional objects of property. The identifiable boundaries that result better enable individuals to complete transactions, form markets and determine the sorts of conduct that will be judged permissible. The stricture that processes generate tangible results also places appropriate limits upon infringement liability, for the courts may far more readily observe the market impact of manipulated objects than trace the effect of more rarified teachings. In all these matters, patent law reflects the precepts of the copyright law, which offers protection only to works fixed in a tangible medium of expression.<sup>60</sup>

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53. *Id.* at \*40-41.

54. *Id.* at \*41.

55. *Id.* at \*41-42.

56. *Id.* at \*42.

57. *Id.*

58. The English Statute of Monopolies of 1623 provided patent protection to “manufactures.” See Thomas, *supra* note 16, at 1143.

59. *Id.* at 1147.

60. *Id.* at 1147.

The inexorable advance of technology put great strain on the patent system's insistence that an invention exhibit traditional physical characteristics. More than two-thirds of the United States' gross domestic product is accounted for by services and intangibles.<sup>61</sup> The Supreme Court resisted the argument that the patentability of inventions in disciplines unforeseen in 1952 should be left to the Congress to decide.<sup>62</sup> Patent applicants increasingly sought patent protection for methods and processes that were implemented by computers. Two judicially created exceptions, the algorithm exception and the business method exception, began to take an increasingly prominent role in patent jurisprudence.

### 1. The Algorithm Exception

The mathematical algorithm exception is a judicially created bar to subject matter patentability that flowed from the well accepted notion that abstract ideas are not patentable. The Supreme Court, in *Gottschalk v. Benson*,<sup>63</sup> invalidated a patent that provided a method of converting binary-coded decimal numerals into pure binary numbers. The Court held that:

It is conceded that one may not patent an idea. But in practical effect that would be the result if the formula for converting BCD numerals to pure binary numbers were patented. . . . The mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.<sup>64</sup>

In a subsequent case, the Supreme Court held that the principle it articulated in *Benson* was applicable if the invention itself was merely the application of an algorithm.<sup>65</sup> The process at issue in that case was one that provided a better means of calculating certain limits applicable to a chemical process using a known algorithm. However, in *Diamond v. Diehr*,<sup>66</sup> the Court held that an invention satisfies the subject

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61. See Olufunmilayo B. Arewa, *Measuring and Representing the Knowledge Economy: Accounting for Economic Reality under the Intangibles Paradigm*, 54 BUFF. L. REV. 1, 38-39 (2006). For an interesting analysis of the effect of intangible property on business strategies see HENRY CHESBROUGH, *OPEN BUSINESS MODELS: HOW TO THRIVE IN THE NEW INNOVATION LANDSCAPE* (2006), where the author categorizes enterprises into six categories based on their ability to exploit technology and innovation.

62. See *Chakrabarty*, 447 U.S. at 315-316. The invention at issue in this case concerned genetic technology.

63. *Gottschalk*, 409 U.S. at 63.

64. Thomas, *supra* note 16, at 1149 (citing *Gottschalk*, 409 U.S. at 71-72).

65. See *Parker v. Flook*, 437 U.S. 584 (1978).

66. *Diamond*, 450 U.S. at 175.

matter requirements of section 101 if the mathematical formula is integral to a structure or process that performs a function which the patent laws were designed to protect. The Court held that the applicant did not seek to patent a mathematical formula but a process - in this case, a process for curing synthetic rubber—that employed a well-known mathematical equation.

In response to an increasing number of patent applications that implicated mathematical formulas as part of processes that involved a physical structure or generated some sort of physical output, the Court of Customs and Patent Appeals employed a two-part test to assess the validity of these patents.<sup>67</sup> The test, known as the Freeman-Walter-Abele test,<sup>68</sup> was used to determine first whether a mathematical algorithm is recited directly or indirectly in the claim. If a mathematical algorithm was so recited, then a determination was made as to whether the claimed invention was no more than the algorithm itself, in which case, the invention failed to meet the subject matter eligibility requirement of section 101. If, however, the mathematical algorithm was a step in a process, or an element in an apparatus, then the invention met the requirements of section 101 if the process or apparatus was eligible subject matter.<sup>69</sup>

Over a decade later the Federal Circuit appeared to eviscerate the mathematical algorithm exception in *In re Alappat*.<sup>70</sup> The patent at issue in that case involved a mathematical algorithm that processed data in a way that allowed information to be displayed more clearly on a monitor. The court upheld the patentability of the process on the grounds that the invention was “not a disembodied mathematical concept which may be characterized as an ‘abstract idea’, but rather a specific machine to produce a useful, concrete, and tangible result.”<sup>71</sup> The *Alappat* decision is credited for bringing the debate about the patentability of software to a swift conclusion.<sup>72</sup>

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67. The Court of Customs and Patent Appeals had jurisdiction over appeals of final decisions of the Patent and Trademark Office and the International Trade Commission. See *supra* note 27.

68. The test is named after a series of three cases. The original formulation of the test resulted from the court's decision in *In re Freeman*, 573 F. 2d 1237 (C.C.P.A. 1978). The test was later refined in *In re Walter*, 618 F.2d 758 (C.C.P.A. 1980), and *In re Abele*, 684 F.2d 902 (C.C.P.A. 1982).

69. *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1058 (Fed. Cir. 1992).

70. *In re Kuriappan P. Alappat*, 33 F.3d 1526 (Fed. Cir. 1994).

71. *Id.* at 1544.

72. See Thomas, *supra* note 16, at 1154-55; Brian Richard Yoshida, *Claiming Electronic and Software Technologies: The Effect of the Federal Circuit Decisions in Alappat, Warmerdam, and Lowry on the Claiming of Mathematical Algorithms and Data Structures*, 45 Buff. L. Rev. 457 (1997).

## 2. The Business Method Exception

In a 1908 case, *Hotel Security Checking Co. v. Lorraine Co.*,<sup>73</sup> the United States Court of Appeals for the Second Circuit invalidated a patent that involved a method and means of preventing fraud by restaurant waiters and cashiers by use of a method of cash registering and accounting. The court invalidated the patent because it found that the technology employed would occur to anyone familiar with business – under the current statutory regime the court would have found the invention to be obvious. In dicta, however, the court spawned what came to be known as the business method exception.<sup>74</sup> Shortly thereafter the Court of Appeals for the Sixth Circuit upheld the validity of a patent related to railway tickets because it found the invention to involve a physical structure and was not merely “a method of transacting business.”<sup>75</sup> Additional cases followed that involved business processes or methods without corresponding physical structures and such inventions were denied patent protection.<sup>76</sup>

It was inevitable that advances in software and computing power would create difficulty in determining whether an invention implicated the mathematical algorithm exception or the business method exception. In *Paine, Webber, Jackson & Curtis, Inc. v. Merrill, Lynch, Pierce, Fenner & Smith, Inc.*,<sup>77</sup> the federal district court upheld Merrill Lynch's patent for a cash management account system. The system combined several common products – a securities account, a money market account, a charge account, and a checking account. The system provided, among other features, a method for customers to sweep idle proceeds into a choice of interest bearing money market accounts.<sup>78</sup> The court held that the mathematical algorithm exception

73. *Hotel Sec. Checking Co. v. Lorraine Co.*, 160 F. 467 (2d Cir. 1908).

74. The court stated that “[i]t is manifest that the subject-matter of the claims is not a machine, manufacture or composition of matter. If within the language of the statute at all, it must be as a “new or useful art.” One of the definitions given by Webster of the word ‘art’ is as follows: ‘The employment of means to accomplish some desired end; the adaptation of things in the natural world to the uses of life; the application of knowledge or power to practical purposes.’ In the sense of the patent law, an art is not a mere abstraction. A system of transaction business disconnected from the means of carrying out the system is not, within the most liberal interpretation of the term, an art.” Thomas, *supra* note 16, at 1146 (citing *Hotel Security Checking Co.*, 160 F. at 469).

75. *Cincinnati Traction Co. v. Pope*, 210 F. 443,447 (6th Cir. 1913).

76. See, e.g., *In re Bolongaro*, 62 F.2d 1059 (C.C.P.A. 1933); *In re Sterling*, 70 F.2d 910 (C.C.P.A. 1934); *In re Patton* (C.C.P.A. 1942).

77. *Paine, Webber, Jackson & Curtis, Inc. v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 564 F. Supp. 1358 (Del. 1983).

78. Such accounts and their modern successors have proven to be quite profitable for the financial service industry. Enormous profits have been made by financial services firms through the investment of customer funds at rates significantly higher than the rates paid to customers

was inapplicable because the system did not directly or indirectly recite a procedure for solving a mathematical problem. The court further held that the invention met the subject matter eligibility requirements because it taught “a method of operation on a computer to effectuate a business activity.”<sup>79</sup> In the court’s view, this case presented a software issue and not a business method issue, although the court did note that if the same processes involved in the invention were performed manually, the invention would not be patentable.<sup>80</sup>

### 3. State Street

In 1998, the patent landscape was altered by the seminal case of *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*<sup>81</sup> Signature Financial held a patent, issued in 1993, on a data processing system that implemented an investment structure that facilitated the pooling of assets by mutual funds into an investment portfolio that was organized as a partnership. Known as a “Hub and Spoke” structure, the pooling of assets into an investment partnership provided economies of scale and certain income tax advantages.<sup>82</sup> The data processing system provided the means for allocating income, expenses, realized gains and losses, and unrealized gains and losses among the partners on a daily basis. Moreover, the system determined the book capital accounts of the partners and provided information necessary for the periodic accounting and tax reports required to be filed by the partnership and its partners.<sup>83</sup>

After license negotiations broke down, State Street brought a declaratory judgment action in federal district court and filed a motion for partial summary judgment of patent invalidity for failure to claim statutory subject matter under section 101. The district court granted the motion using both the mathematical algorithm exception and the

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for the use of their funds. Such practices have drawn criticism. See Randall Smith, *How Wall Street ‘Sweeps’ the Cash*, WALL ST. J., Jan. 11, 2007, at C1.

79. *Id.* at 1369.

80. *Id.*

81. *State Street Bank & Trust v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998).

82. The investment partnership was the “Hub” and the “Spokes” were the mutual fund partners in the investment partnership. The partnership structure offers various tax advantages, among them, the lack of an entity level tax, flexibility in allocation of income and loss, and exit flexibility. See generally Matthew A. Melone, *Corporate Partnering: The Increasing Applicability of Subchapter K in a Subchapter C World*, 16 J. TAX OF INVEST. 15 (1998).

83. Book capital accounts refer to partners’ capital accounts that are maintained in accordance with Treas. Reg. § 1.704-1(b)(2)(iv) (2005). Partnerships have tremendous flexibility in allocating tax items among partners. However, such allocations must have substantial economic effect. See I.R.C. § 704(a)-(b) (2006). The maintenance of such accounts is one of several requirements imposed by the income tax regulations to insure that allocations of income, expenses, gains, losses, and credits among the partners have substantial economic effect.



business method exception as grounds to invalidate the patent.<sup>84</sup> The Court of Appeals for the Federal Circuit held that whether a claim is categorized as a machine claim or process claim is of little relevance in determining subject matter eligibility.<sup>85</sup> The court, citing *Chakrabarty*, interpreted section 101 expansively. "The repetitive use of the expansive term 'any' in § 101 shows Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101."<sup>86</sup>

The court then turned its attention to the mathematical algorithm and business method exceptions. With respect to the mathematical algorithm exception the court laid to rest the Freeman-Walter-Abele test by holding that such test had little, if any, applicability after *Diehr* and *Chakrabarty*.<sup>87</sup> The court reiterated the "means test" it formulated in *Alappat*:

As we pointed out in *Alappat* . . . application of the test could be misleading, because a process, machine, manufacture, or composition of matter employing a law of nature, natural phenomenon, or abstract idea would not, by itself, be entitled to such protection. The test determines the presence of, for example, an algorithm. Under *Benson*, this may have been a sufficient indicium of nonstatutory subject matter. However, after *Diehr* and *Alappat*, the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a "useful, concrete and tangible result."<sup>88</sup>

Provided a claim performs a function that transforms or reduces an article to a different state or thing, it is entitled to patent protection despite the fact that it implements or applies a mathematical formula.<sup>89</sup>

The court then addressed the business method exception. The business method exception, in the court's view, was not a stand-alone exception at all and invocation of this exception was always preceded by a ruling based on a clearer concept such as the application of the ab-

84. *State Street Bank & Trust v. Signature Fin. Group, Inc.*, 927 F. Supp. 502 (D. Mass. 1996).

85. *State Street*, 149 F.3d. at 1372. The court also noted, in dicta, that the judicially created exceptions should be applicable to all categories of subject matter. *Id.* at 1372 n.1.

86. *Id.* at 1373. Section 101 provides that "[w]hoever invents or discovers *any* new or useful process, machine, . . . or *any* new or useful improvement thereof, may obtain a patent therefore . . ." 35 U.S.C. § 101 (2000) (emphasis provided).

87. See *supra* note 26 and accompanying text.

88. *Id.* at 1374 (references omitted).

89. *Id.* at 1375. The court interpreted *Hotel Security Checking Co. v. Lorraine*, discussed at *supra* note 73 and accompanying text, as a decision that turned on lack of novelty and invention and not on ineligible subject matter. *Id.* at 1376.

stract idea exception based on finding a mathematical algorithm.<sup>90</sup> The court took the “opportunity to lay this ill-conceived exception to rest.”<sup>91</sup> Leaving no doubt that this exception had no further application in determining subject matter eligibility, the court went on to state that this exception “is an unwarranted encumbrance to the definition of statutory subject matter” and should “be discarded as error-prone, redundant, and obsolete.”<sup>92</sup>

#### 4. Post-State Street Criticism and Responses

After *State Street*, business method claims were to be treated in a manner similar to any other process claims.<sup>93</sup> Several high profile cases followed, including *AT&T Corp. v. Excel Communications*<sup>94</sup> and *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*<sup>95</sup> The immediate consequence of the *State Street* decision was a marked increase in patent applications. In the year 2000, the number of business method applications increased approximately 700 percent from the number of such applications filed in 1997.<sup>96</sup> Certain industries, such as the financial services industry, were particularly affected by a perception that there existed “a gold-rush mentality toward patents and litigation.”<sup>97</sup> As a consequence, the issuance of patents on business methods came under swift, varied, and vociferous criticism.<sup>98</sup>

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90. *Id.* at 1375.

91. *Id.*

92. *Id.*

93. In general, European and Japanese patent authorities do not recognize business method claims as patentable. Some sort of physical instantiation is required. See generally Lee, *supra* note 7.

94. *AT&T Corp. v. Excel Commc'ns*, 172 F.3d 1352 (Fed. Cir. 1999). The invention at issue involved the use of a mathematical algorithm to automatically route phone calls to a long distance carrier. The court reversed the district court's finding of invalidity, which was based on the mathematical algorithm exception.

95. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343 (Fed. Cir. 2001). This case involved Amazon's well known “one-click” system for placing on-line orders. Amazon brought an infringement suit against Barnes and Noble, alleging that its use of a similar process infringed on its patent, and was granted a preliminary injunction by the federal district court. The Federal Circuit reversed the district court finding that Barnes and Noble's prior arguments raised a substantial issue regarding the validity of the patent. *Id.*

96. Douglas L. Price, *Assessing the Patentability of Financial Services and Products*, 3 J. HIGH TECH. L. 141, 155 (2004).

97. *Id.* (quoting Neil F. Carlson, *Developing Business Process Patents and Intellectual Property*, 82 STRATEGIC FIN. 65 (2000)).

98. Gene patents and software patents were also subject to much criticism. Detractors of software patents put forth criticisms similar to those leveled at business method patents. Patents on genetic technology focused primarily on doubts about whether advances in the field were invented as opposed to discovered. See John R. Allison & Starling D. Hunter, *On the Feasibility of Improving Patent Quality One Technology at a Time: The Case of Business Methods*, 21

Critics of business method patents questioned the quality of such patents. Prior art with respect to business methods is sparse because such methods, if they are perceived to confer a competitive advantage to the user, are generally practiced in secret.<sup>99</sup> Much of the prior art that does exist is not found in scholarly publications but in trade usage and common knowledge. Moreover, Patent and Trademark Office examiners do not have the requisite training and background to provide an adequate analysis of prior art. Improvements to business methods often occur in small increments that can only charitably be considered inventive.<sup>100</sup> The Honorable Richard A. Posner aptly summed up such criticisms:

One particularly important development . . . was the recognition of a class of patents called "business method patents," which are not technology, but instead are ideas for better ways of doing business. In the old days, such ideas would have been thought non-patentable, would have been considered the kind of normal business innovation that is driven by incentives that did not depend on propertization. A number of what have in the olden days been thought of as dubious improvements in business method have been granted patents and those patents have been upheld. . . . Instead of stimulating invention, the lax standard of the patent office may be creating incentives for strategic uses of intellectual property that end up making invention more costly, more burdensome, this reducing the rate and distorting the direction of incentive activity. It is another example of how increasing propertization . . . can actually impair the economic goals that underlie intellectual property laws.<sup>101</sup>

Detractors of business method patents also asserted that the social costs imposed by such patents far outweighed the benefits they generated. Business methods are generally employed in public view and, therefore, there is little to be gained from the disclosure emanating from the patent issuance process. Moreover, many critics of business method patents believe that any free-rider problems associated with business methods are greatly exaggerated because the success of such

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BERKELEY TECH. L.J. 729, 732 n.6 (2006); John R. Allison & Emerson H. Tiller, *The Business Method Patent Myth*, 18 BERKELEY TECH. L.J. 987, 1012-15 (2003).

99. See Allison & Tiller, *supra* note 98, at 1012-16; Allison & Hunter, *supra* note 98, at 732-34.

100. See Rochelle Cooper Dreyfus, *Are Business Method Patents Bad For Business*, 16 SANTA CLARA COMPUTER & HIGH TECH. L.J. 263, 268-71 (2000). One scholar reserved particularly harsh criticism for the patent at issue in the *State Street* case by stating that "the alleged inventor had done nothing more than write a pedestrian computer program for performing routine arithmetic calculations dictated by legal authority, using programming languages, techniques and computers invented – if at all – by someone else." Jay Dratler, Jr., *Alice in Wonderland Meets the U.S. Patent System*, 38 AKRON L. REV. 299, 303 (2005).

101. Richard A. Posner, *Do We Have Too Many Intellectual Property Rights*, 9 MARQ. INTELL. PROP. L. REV. 173, 184-85 (2005).

methods tend to depend on firm specific attributes such as compensation policies, supervision schemes, customer loyalty, and other such factors.<sup>102</sup> The minimal benefit to be gained from the issuance of such patents is more than offset by the stifling effect on innovation that results from the issuance of such patents. To the extent innovation is reliant on an existing body of applied knowledge, private ownership of certain applications increases the cost of innovation to others. One critic has conceptualized knowledge as a pyramid.<sup>103</sup> At the top are the “big ideas,” those that are instrumental in generating new applications or technological opportunities.<sup>104</sup> At the bottom are specific applications.<sup>105</sup> Relatively little social costs are associated with the private ownership of specific applications because others have little use for such applications. The “big ideas,” however, form a foundation for future innovation and privatization of these innovations imposes significant social costs. To the critics, business method patents are at the top of the pyramid.<sup>106</sup>

Others justified their criticisms of business method patents on the grounds that such patents produced “lock-in” and network effects,<sup>107</sup> resulted in patent flooding,<sup>108</sup> disproportionately burdened small enterprises, and damaged the public’s perception of the patent system.<sup>109</sup> Of course, there remained those who argued that the patent system should limit its application to inventions of an industrial nature.<sup>110</sup>

Congress was not oblivious to the crescendo of criticism and, in response to the general perception that business methods were typically practiced in secret, enacted The First Inventor Defense Act of 1999.<sup>111</sup>

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102. *Id.* at 275.

103. *Id.* at 275-76.

104. *Id.*

105. *Id.*

106. *Id.* at 276.

107. “Lock-in” refers to the difficulty of competitors to overcome users’ preference of an application or process. Such difficulty typically stems from the fact that the perceived cost of switching to a competing application or process outweighs the perceived benefits of such a switch. Network effects arise if the benefit of an application or process is dependent, in large part, on the existence of a large network of users of the same process or application. Both “lock-in” and network effects can arise in short order and create market distortions. For an analysis of how innovations can become platforms that form the foundation for broad ecosystems. See DAVID S. EVANS ET AL., *INVISIBLE ENGINES: HOW SOFTWARE PLATFORMS DRIVE INNOVATION AND TRANSFORM INDUSTRIES* (2006).

108. See Michael J. Meurer, *Business Method Patents and Patent Floods*, 8 WASH. U. J.L. & POL. 309 (2002).

109. See Allison & Tiller, *supra* note 98, at 1008-12.

110. See Thomas, *supra* note 16, at 1178-85. See also Alan L. Durham, “Useful Arts” in the Information Age, 1999 B.Y.U. L. REV. 1419 (1999).

111. Pub. L. No. 106-113, 113 Stat. 1536 (1999) (codified as amended at 35 U.S.C. § 273 (2006)). Congress also acted more broadly on the issue of business method patents. The Business

This legislation was unusual in two respects. First, it created a prior user defense against patent infringement actions. A person, acting in good faith, could defend against a patent infringement action if the subject matter that would otherwise infringe on one or more patent claims was actually reduced to practice at least one year before the effective filing date of the patent and the subject matter was commercially used before such date.<sup>112</sup> Although other nations have provided defenses to first inventors who exploit their invention in secret, United States patent law had not, until the enactment of this legislation, recognized such a defense.<sup>113</sup> Consequently, a prior user exploiting the invention in secret may continue to use the invention despite the issuance of a patent to another person.<sup>114</sup>

Secondly, the statutory defense applies only to business method patents and was thus a rare case of legislation that singled out a particular subject matter for special treatment under the patent laws.<sup>115</sup> The Patent and Trademark Office, cognizant of the criticisms being heaped upon business method patents, undertook efforts to enhance the quality of such patents. Among the measures implemented by the Patent

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Method Patent Improvement Act of 2000, H.R. 5364, 106th Cong. (2006), would have made the issuance of such patents more difficult and subsequent challenges to them less difficult by, among other provisions, creating a presumption of obviousness in certain cases, instituting post-grant administrative challenges, and reducing the burden of proof for the person challenging such patents. The bill received no action. The next year a similar bill, The Business Method Patent Improvement Act of 2001, H.R. 1332, 107th Cong. (2001), was introduced and similarly received no action.

112. 35 U.S.C. § 273(b)(1) (2006). This defense does not cause the invalidation of a patent. 35 U.S.C. § 273(b)(9) (2006). If the defense proves unsuccessful attorney fees may be awarded by the court to the patent holder if the person raising the defense had no reasonable basis for doing so. 35 U.S.C. § 273(b)(8) (2006).

113. Unlike the United States, other nations employ a first to file system for determining patent priority. Under the first to invent system employed in the United States prior users are not considered to be as vulnerable to having their invention patented out from under them as they would be under a first to file system.

114. The statute expressly provides that the commercial use of a method does not depend on whether the subject matter at issue is accessible to or otherwise known to the public. 35 U.S.C. § 273(a)(1) (2006).

115. 35 U.S.C. § 273(a)(3) (2006); 35 U.S.C. § 273(b)(3)(A) (2006). The legislation did not, however, define the term "method of doing or conducting business." Several years earlier § 616 of the Omnibus Consolidated Appropriations Act, 1997, The Limitation On Patent Infringements Relating To A Medical Practitioner's Performance Of A Medical Activity, Pub. L. No. 104-208, 110 Stat. 3009 (1996), provided immunity against patent infringement actions to certain health care providers. This legislation, codified at 35 U.S.C. § 287(c) (2000), precludes a patent holder from obtaining either damages or injunctive relief against a medical practitioner or health care facility with respect to the performance of a medical procedure on humans, or relating to the treatment of humans, that does not involve the use of a patented machine, patented matter, or biotechnology patent. Generally, this legislation was in response to the patenting of medical procedures such as surgical techniques and the concomitant concern that such patents could compromise patient care.

and Trademark Office were the hiring of examiners with expertise in software and business, the provision of additional training and enhanced data bases, and the establishment of a forum in conjunction with several industries to discuss issues relating to business method patents.<sup>116</sup> A second level of examiner review was also instituted for business method patent applications.<sup>117</sup> As a result of these measures, the grant rate for business method patent applications declined from 56 percent to 35-40 percent between March of 2000 and October 2002.<sup>118</sup>

### III. TAX STRATEGY PATENTS

As of December 31, 2006 there were fifty patents issued that were listed under the classification for tax strategy patents.<sup>119</sup> Reliance on the patent classification system to ferret out claims implicating tax matters is both over and under-inclusive. Many patents that are classified in other subclasses of class 705 may contain claims related to tax matters as did, for example, the patent in question in *State Street*.<sup>120</sup> Moreover, patents classified in subclass 36T, Tax Strategies, contain claims that involve methods of calculating amounts that are necessary for some tax purpose, software for efficiently carrying out a transaction or preparing required reports, or, in at least one case, have no connection to tax matters at all.<sup>121</sup>

Patent claims involving methods that aid with the compliance of statutory or regulatory requirements or enable taxpayers to effectively and efficiently take advantage of tax planning opportunities that are presented by the tax statutes or regulations raise no special issues. For example, whether a software program that enables a corporation to determine its foreign tax credit position is entitled to patent protection should be determined under the standards applicable to a business method claim in general. The inventions that raise special issues

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116. See Allison & Tiller, *supra* note 98, at 1024-26.

117. *Id.* at 1026.

118. *Id.*

119. Tax Strategy patents are classified in subclass 36T "Tax Strategies," part of class 705 "Data Processing: Financial. Business Practices, Management, or Cost/Price Determination. Patent classification schedules for class 705 are available at <http://www.uspto.gov/go/classification/uspc705/sched705.htm> (last visited Apr. 9, 2007). A listing of patents issued that are classified in subclass 36T is available at <http://www.uspto.gov> (last visited Apr. 10, 2006).

120. The process at issue in *State Street* contained claims related to the maintenance of book capital accounts and the reporting of required tax information to partners. See *supra* notes 81-83 and accompanying text.

121. See Multi-layer corrosion resistant coating, U.S. Patent No. 6,342,272 (issued Jan. 29, 2002).

are those whose claims are broad enough to encompass the underlying tax planning technique itself.

One patent applicant's claim, for example, covers the conversion of traditional individual retirement accounts to Roth individual retirement accounts and the minimization of the tax consequences of such conversion through the use of annuities.<sup>122</sup> An issued patent's claims include the funding of grantor retained annuity trusts with compensatory stock options to minimize transfer tax liabilities.<sup>123</sup> If a person invents a useful, novel, and nonobvious method of determining the optimum time, and amount, to convert a traditional individual retirement account or to fund a grantor retained annuity trust then patent protection should issue. It is quite another matter, however, to grant the inventor rights to such an extent that such rights cover individual retirement account conversions using annuities or trust funding with compensatory stock options *per se*. The granting of such rights is tantamount to the grant of a proprietary interest in the law. These are the patents about which this article is concerned.

#### A. *Application of Criticisms of Business Method Patents to Tax Strategy Patents*

Patents on tax strategies are susceptible to the same criticisms leveled at business method patents generally. However, many of the problems associated with business method patents in general are either ephemeral or have little application to tax strategy patents. Much of the criticism leveled at the quality of business method patents is premised on the lack of prior art references. To that extent, criti-

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122. Method of doing business involving conversion of traditional individual retirement account to a Roth individual retirement account, U.S. Patent No. App. No. 10/123,703, Pub. No. US 2003/0195827 A1, Oct. 16, 2003 (filed April 15, 2002) *available at* <http://aiw1.uspto.gov/aiw?Docid=20030195827&idkey=NONE> (last visited Apr. 10, 2007) (describing both conversions). Contributions to traditional individual retirement accounts are deductible but withdrawals from such accounts are taxable. In contrast, contributions to Roth individual retirement accounts are not deductible but withdrawals are tax free. Both types of accounts are subject to various income restrictions and other requirements. *See* James Lange, *IRAs After the TRA '97 - What Hath Congress Roth?*, 5-98 TAX ADVISER 318 (1998). The Tax Increase Prevention and Reconciliation Act of 2005, Pub. L. No. 109-222, 120 Stat. 345 (2006) and the Pension Protection Act of 2006, Pub. L. No. 109-280, 120 Stat. 780 (2006) liberalized the rules governing Roth individual retirement accounts. *See generally* Catina M. Scafidi & Anthony P. Curatola, *Tax Increase Prevention and Reconciliation Act of 2005*, 88 STRATEGIC FIN. 16 (2006); Richard E. Coppage et. al., *Prepare to Benefit from Liberalized Roth IRA Conversion Rules*, 77 PRACTICAL TAX STRATEGIES 142 (2006); Stanley D. Baum, *Sweeping changes for Pension Plan Funding and Other Rules, Part 2 - Protections and Incentives*, 105 J. TAX'N 277 (2006).

123. Establishing and managing grantor retained annuity trusts funded by nonqualified stock options, U.S. Patent No. 6,567,790 (issued May. 20, 2003). This patent is the subject of pending litigation. *See infra* note 203 and accompanying text.

cism of tax strategy patents should be muted because there exists an extensive and rich body of tax literature. In addition, the patent issuance process will itself create a body of prior art. If, for sake of argument, one concedes the fact that patent office personnel lack the adequate background and training in tax matters to properly review applications for such patents then, at worst, a temporary problem exists. If the subject matter in question deserves statutory protection then it should be protected. It is of no moment that the personnel are ill-equipped to deal with such matter. The solution is not to banish the subject matter to the commons, but to properly equip the personnel to handle such applications effectively and efficiently. To its credit, the Patent and Trademark Office has taken steps to improve the quality of business method patents.<sup>124</sup> Nothing would suggest that it is incapable of doing the same in the tax area. Moreover, tax strategy patents invariably involve the combination of well known tax techniques that, when used in isolation, are patently obvious. The Supreme Court, rejecting the Federal Circuit's application of the "teaching-suggestion-motivation" test, has raised the standards for nonobviousness for such inventions.<sup>125</sup>

Moreover, the perceived lack of quality inherent in business method patents in general may be rooted more in anecdote than in fact. Allison and Tiller's statistical comparison of internet business method patents with patents in general showed that the former had significantly more patent references, non-patent references, and total references than patents in general. This finding, along with others, led the authors to conclude that they found no evidence to support the notion that Internet business method patents were of inferior quality or of lower value than other patents.<sup>126</sup> The gap between perception and reality was created by a few highly publicized patents, such as Amazon's patent on the one-click shopping system, and then reinforced by what behavioral scientists refer to as "confirmation bias" or "behavioral perseverance."<sup>127</sup>

It is also unlikely that the issuance of patents on tax strategies will produce any "lock-in" or network effects. Such effects are characteris-

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124. See *supra* notes 116-118 and accompanying text.

125. See *supra* notes 50-57 and accompanying text.

126. Allison & Tiller, *supra* note 98, at 1081. In addition to prior art references, the authors also tested four other value indicators: the type of prior art references; the number of claims within the patents; the number of inventors; and the time spent in the Patent and Trademark Office before issuance. *Id.* at 998.

127. *Id.* at 1081(citing several works in the behavioral sciences). These terms are used to describe the tendency of persons to give greater credence to, and oftentimes to actively seek out, information that confirms beliefs that such persons already hold.



tic of products whose value or utility increases as the number of users of such products increases.<sup>128</sup> It is equally unlikely that the Patent and Trademark Office will be flooded with applications based on such strategies to an extent that, when compared to business strategy patents in general, merits mention. Moreover, tax strategy patents will likely have their greatest impact on large, complex businesses and most small businesses should remain oblivious to the existence of such patents. Objections based on the notion that patents should be issued exclusively for industrial inventions have no greater force in the tax strategy area than they have in the broader context of business method patents. In any event, that train has left the station and, given the economy's increasing reliance on technology, is very unlikely to return.

The issuance of tax strategy patents could, however, further erode the public's perception of the patent system, especially in light of the likely enforcement difficulties associated with such patents.<sup>129</sup> However, the criticism that resonates with particular force in the tax strategy area is the assertion that the costs of such patents outweigh their benefits. The patenting of tax strategies will add new complexity to an area of law in no particular need of it and exacerbate the commonly held notions that the tax law suffers from a lack of transparency and is applied in an unfair manner.

Specifically, on the cost side, granting patents for such inventions will inject patent law issues into an area of law that is already noteworthy for its byzantine complexity. Granting such patents will also encourage the development of abusive and aggressive tax strategies. Moreover, the patentability of tax strategies will provide new fodder for the all too prevalent rent-seeking and rent extraction activities that are so commonplace with respect to tax legislation. Finally, enforcement of such patents will prove difficult and be uneven at best further buttressing the perception that the tax system is not fairly administered. In light of the costs attendant to the granting of tax strategy patents, justification for such patents must lie with the benefits, in the form of incentives to innovate, that such patents provide. The benefits to be gained by the issuance of such patents, however, are dubious. Tax lawyers have rarely been accused of a lack of ingenuity and incentives for tax lawyers to produce are plentiful.

A final objection to the issuance of patents on tax strategies is based on the nature of the subject matter of the patents – the law. This

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128. See generally Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424 ( 1985 ).

129. See *infra* notes 184-205 and accompanying text.

objection is not rooted in utilitarian grounds. Patents on tax strategies amount to grants by the government of proprietary interests in the law to private citizens. Such patents commodify the law and ignore the law as a singular achievement that, more so than any other human accomplishment, properly belongs to the commons.

B. *The Cost of Tax Strategy Patents: Complexity and its Corrosive Effect on Voluntary Compliance*

The income tax law of the United States is complex, fluid, and the most significant source of federal revenue.<sup>130</sup> At its inception in 1913, the income tax laws of the United States were contained in 14 pages and an individual had to grapple with a tax return three pages in length after taking the time to read one page of instructions.<sup>131</sup> Two decades later the tax statutes had expanded to 100 pages.<sup>132</sup> Today, the Internal Revenue Code contains almost 3000 pages and the Internal Revenue Service publishes approximately 400 forms and schedules.<sup>133</sup> One commentator, in recounting the days when an associate would be told to read the tax statutes in their entirety and report back, quipped that such a request today would result in the associate's permanent absence.<sup>134</sup>

Tax law concerns itself with issues that "revolve[ ] around timing and character."<sup>135</sup> By their nature such laws define a tax base and, accordingly, measurement, classification, and summarization issues are ubiquitous.<sup>136</sup> Much of the tax law's complexity is derived from

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130. In fiscal year 2005 approximately 2.27 trillion dollars in total tax were collected of which over sixty percent was generated by individual and corporate income taxes. See I.R.S., 2005 DATA BOOK 1, tbl.1, col.3, available at <http://www.irs.gov/pub/irs-soi/05databk.pdf> (last visited Apr. 10, 2007).

131. See Frank J. Doti, *Federal Tax Policy in the New Millennium*, 2 CHAP. L. REV. 27, 28 (1999). The ratification of the Sixteenth Amendment to the United States Constitution ushered in the modern federal income tax system. The Revenue Act of 1913, Pub. L. No. 63-16, 38 Stat. 167 (1913), was enacted shortly thereafter and was followed by all too regular legislative actions. Three major codifications, the Internal Revenue Codes of 1939, 1954, and 1986, have occurred since 1913.

132. See Charles I. Kingon, *How Tax Thinks*, 37 SUFFOLK U. L. REV. 1031, 1033 (2004).

133. *Id.* at 28 (citing U.S. GEN. ACCOUNTING OFFICE, TAX ADMINISTRATION: THE POTENTIAL IMPACT OF ALTERNATIVE TAXES ON TAXPAYERS AND ADMINISTRATORS 39-40 (1998)).

134. See Kingon, *supra* note 132, at 1034.

135. Deborah Lohse, *Tax Report*, WALL ST. J., July 20, 1994, at A1 (indicating that Ed Klienbard discussed the rules applicable to hedging transactions).

136. These issues and their attendant complexities lie at the heart of the muddled debate concerning whether certain tax services rendered by certified public accountants constitute unauthorized practice of law. See, e.g., *In re N.Y. County Law. Ass'n.*, 78 N.Y.S. 2d 209 (N.Y. App. Div. 1948) (applying an incidental service test in determining whether tax services performed by an accountant amounted to the unauthorized practice of law); *Gardner v. Conway*, 48 N.W. 2d 788 (Minn. 1951) (holding that whether tax services constituted the unauthorized practice of law

the growth of the domestic and international economies and the inherent complexity of industrial and post-industrial business practices. Less benign reasons for the law's complexity are the influence of special interests<sup>137</sup> and the tendency of legislators to use the tax laws as a means of social engineering.<sup>138</sup>

Support for tax simplification has achieved a level of consensus rarely seen in academic, business, and political circles. One commentator stated that "[o]ne rarely hears a person declare 'I'm all for complexity. I love the fact that the Internal Revenue Code is mind-numbingly complex!'"<sup>139</sup> Proposals for simplification of the tax system have been put forth for quite some time and some efforts have borne fruit, albeit fruit with a short shelf-life.<sup>140</sup>

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by the service provider depended, in part, on whether difficult or elementary questions of law were at issue). Line drawing between the accounting and legal professions has defied consensus because measurement, classification, and summarization issues cannot be divorced from the law itself and, in many cases, the resolution of such issues are statutorily prescribed.

137. See generally Edward J. McCaffrey & Linda R. Cohen, *Shakedown at Gucci Gulph: The New Logic of Collective Action*, 84 N.C.L. REV. 1159 (2006).

138. Among the more recognizable examples of use of the tax code to encourage particular activities are the incentives that exist for residential housing, employer provided health insurance, and education. See, e.g., I.R.C. § 163(h)(2)(D) (2006); I.R.C. § 163(h)(3) (2006) (excepting interest on most acquisition indebtedness with respect to primary residences and second homes and interest on certain home equity debt from the general prohibition on the deductibility of personal interest); § 164(a)(1) (2006) (allowing deductions for state, local, and foreign real property taxes); § 121 (2006) (excluding certain amounts from income recognized on the sale of a principal residence); I.R.C. § 106 (2006) (excluding employer provided health care insurance from income); I.R.C. § 25A (2006) (providing tax credits for certain educational expenses); I.R.C. § 117 (2006) (excluding from gross income certain scholarships and tuition reduction payments from income). Apart from their contribution to the complexity of the tax system, tax incentives are subject to criticism because they tend to distort incentives and encourage over-investment in the area that is favored. See William T. Mathias, *Curtailing the Economic Distortion of the Mortgage Interest Deduction*, 30 U. MICH. J.L. REFORM 43 (1996). Moreover, such incentives are often used to camouflage the cost of such incentives to the body politic because revenue losses through tax provisions lack the transparency of spending appropriations. See generally Stanley S. Surrey & Paul R. McDaniel, *The Tax Expenditure Concept and the Budget Reform Act of 1974*, 17 B.C. INDUS. & COMM. L. REV. 679, 697 (1976).

139. Steve R. Johnson, *Administratively-Based Tax Simplification*, 4 NEV. L.J. 573, 579 (2004). Tax simplification would not be welcome in all quarters, however. Those persons who make a living – usually a quite good one – navigating the complexities of the Internal Revenue Code would most likely oppose simplification. Members of Congress, who hold out the tax law like a proverbial cookie jar, and the lobbyists who enjoy putting their hands in the cookie jar may be reluctant to lose the camouflage complexity offers. See *infra* notes 176-83 and accompanying text for a discussion of the relationship between lobbyists and lawmakers.

140. See, e.g., Edward J. McCaffrey, *A New Understanding of Tax*, 103 MICH. L. REV. 807 (2005); Michael J. Graetz, *100 Million Unnecessary Returns: A Fresh Start for the U.S. Tax System*, 112 YALE L.J. 261 (2002); Alan Schenk, *Federal Tax Policy in the New Millennium: Radical Tax Reform for the 21<sup>st</sup> Century: The Role for a Consumption Tax*, 2 CHAP. L. REV. 133, 138-146 (1999). See also Ernest Tollerson, *Bowing Out: Forbes Quits and Offers His Support to Dole*, N.Y. TIMES, Mar. 15, 1996, at A26 (summarizing presidential candidate Steve Forbes' platform for tax reform). The Tax Reform Act of 1986, Pub. L. No. 99-514, 100 Stat. 2085 (1986), arguably

Inordinate complexity creates burdens at several levels. At the taxpayer level, complexity increases compliance costs. Estimates of aggregate compliance costs vary widely but there is little doubt the costs are significant.<sup>141</sup> These costs, moreover, represent a deadweight cost to the economy.<sup>142</sup> More pernicious is the effect complexity has on compliance. The U.S. income tax system is self-assessing. Voluntary taxpayer compliance, underpinned by the Internal Revenue Code's "reliance on taxpayers to come clean about their taxable income,"<sup>143</sup> is the *sine qua non* of the system. Complexity erodes taxpayer support for the system by encouraging the belief that the system is unfair, subject to manipulation, and, in many cases, unenforceable.<sup>144</sup> Recent

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the signal domestic policy achievement of the Reagan Administration, made significant strides in reforming the income tax system. In some cases the legislation simplified the tax structure. For example, tax rates were compressed and capital gain preferences were eliminated. In other cases, reform meant greater complexity as witnessed by the introduction of the passive activity loss rules and the reformulation and expansion of the alternative minimum tax. Moreover, much of what was accomplished by the 1986 legislation was undone by subsequent legislation such as the Revenue Reconciliation Act of 1990, Pub. L. No. 101-508, 104 Stat. 1388 (1990), and the Revenue Reconciliation Act of 1993, Pub. L. No. 103-66, 107 Stat. 312 (1993). For an informative analysis of the recent history of tax legislation and its effect on reform efforts see Robert J. Peroni, *Tax Reform Interrupted: The Chaotic State of Tax Policy in 2003*, 35 McGEORGE L. REV. 277 (2004). One particularly vitriolic response to the current state of the tax system was the passage by the House of Representatives of the Tax Code Termination Act of 1998, H.R. 3097, 105th Cong. (1998).

141. Estimates of income tax compliance costs have reached as high as \$ 360 billion dollars per annum. See Johnson, *supra* note 139, at 580 n.36. More realistically, compliance costs are probably within shouting range of \$100 billion. See *id.* at 581 (citing the work of economists Joel Slemrod and Jon Bajika).

142. Compliance costs have been at the heart of the recent debate over the issue of whether the internal control attestation requirement imposed by § 404 of the Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (2002), should be reconsidered. See, e.g., William J. Carney, *The Cost of Being Public After Sarbanes-Oxley: The Irony of Going Private*, 55 EMORY L.J. 141 (2006); Paul Rose, *Balancing Public Market Benefits and Burdens for Small Companies Post Sarbanes-Oxley*, 41 WILLAMETTE L. REV. 707 (2005); David Reilly, *Regulator Says Accounting Rules May Ease but Will Stay in Place*, WALL ST. J., Nov. 18, 2006, at B5; Annette Nazareth, *Keeping SarbOx is Crucial*, BUSINESSWEEK, Nov. 13, 2006, at 124. A recent study by the Securities and Exchange Commission appears to indicate that costs incurred in assessing and improving internal controls may be a good use of corporate funds. See David Reilly, *Restatement Blame: Basic Mistakes*, WALL ST. J., Nov. 20, 2006, at C4 (reporting that a study by the Office of the Chief Accountant of the Securities and Exchange Commission found that approximately 55 percent of recent accounting restatements were due to the misapplication of basic accounting rules and use of incorrect data – mistakes that implicate internal control failures).

143. Linda M. Beale, *Book-Tax Conformity and the Corporate Tax Shelter Debate: Assessing the Proposed Section 475 Mark-to-Market Safe Harbor*, 24 VA. TAX REV. 301, 371 (2004).

144. See generally Kenneth A. Gary & Sheryl Stratton, *Top Regulators Weigh in on Shelters*, 102 TAX NOTES 947 (2003) (quoting I.R.S. Commissioner Mark Everson on the complicity of complexity in the increase of abusive tax shelters); Thomas F. Field, *The Emperor Has No Clothes*, 102 TAX NOTES 1125 (2003). In a study of the 1997 Arkansas tax penalty amnesty program non-filers that owed high amounts of tax reported that the unfairness of the tax system influenced their failure to file. CHRISTINA M. RITSEMA ET. AL., ECONOMIC AND BEHAVIORAL

estimates that annual revenue losses resulting from noncompliance, both intentional and unintentional, exceed \$300 billion is damning evidence that too many persons cannot, or will not, comply with the law.<sup>145</sup> Recent Internal Revenue Service data indicates that publicly traded companies reduced their U.S. taxable income by at least \$ 34.8 billion dollars in 2004 through the use of potentially abusive transactions.<sup>146</sup>

The revenue loss is all the more startling when one considers that much of tax compliance is effectuated through what one scholar calls structural, as opposed to fiat, rules that render non-compliance difficult.<sup>147</sup> Whether a person chooses to comply with the tax law is predicated, to some extent, on the costs of non-compliance and such costs must account for the likelihood and severity of enforcement actions.<sup>148</sup> However, social norms also play a significant role in any voluntary compliance system. Cheating creates its own non-virtuous circle, or what one scholar calls the "Logic of Reciprocity."<sup>149</sup> The more people cheat the more people will cheat. Empirical research has

DETERMINANTS OF TAX COMPLIANCE: EVIDENCE FROM THE 1997 ARKANSAS TAX PENALTY AMNESTY PROGRAM 13 (2003), available at <http://www.irs.gov/pub/irs-soi/ritsema.pdf> (last visited Apr. 10, 2007).

145. See Allen Kenney, *IRS Oversight Board Calls for Tighter Enforcement, More Funds*, 2004 T.N.T. 150-1 (2004).

146. Jesse Drucker, *Minding the Gap: IRS Looks Closer at Profit Disparity*, WALL ST. J., Nov. 27, 2006, at C1. United States public companies reported approximately \$554 billion in pre-tax profits for financial accounting purposes, approximately \$160 billion more than reported for taxable income purposes. Most of the disparity is a result of differences in accounting methods between financial accounting and tax accounting methods. *Id.*

147. Regulation by fiat is a direct method of regulating behavior. Such regulation is characterized by specific prohibitions on conduct that are enforced *ex post* by government sanctions or private tort litigation. Most of criminal law and traffic regulations are enforced by fiat. Ineffective fiat regimes tend to reduce compliance by contributing to the sense that the rules in question are discriminatorily applied. Moreover, the inability to adequately enforce such laws reduces the social stigma of noncompliance. In contrast, structural rules operate indirectly by influencing behavior *ex ante*. Structural rules include the use of surveillance cameras and metal detectors. The perceived ineffectiveness of fiat regulations has spurred efforts by Mothers Against Drunk Driving to require the installation of alcohol detectors in automobiles. See Matthew L. Wald, *A New Strategy To Discourage Driving Drunk*, N.Y. TIMES, Nov. 20, 2006, at A1. Income tax withholding requirements are an example of very effective structural rules that make noncompliance difficult. See generally Edward K. Cheng, *Structural law and the Puzzle of Regulating Behavior*, 100 N.W. U. L. REV. 655 (2006).

148. See generally Yoram Keinan, *Playing the Audit Lottery: The Role of Penalties in the U.S. Tax Law in the Aftermath of Long Term Capital Holdings v. United States*, 3 BERKELEY BUS. L.J. 381, 394-97 (2006) (discussing the economics of penalties); Eric A. Posner, *Law and Social Norms: The Case of Tax Compliance*, 86 VA. L. REV. 1781, 1783 (2000) (asserting that if the expected sanction exceeds the tax payment then a person will pay the tax).

149. See Marjorie E. Kornhauser, *Doing the Full Monty: Will Publishing Tax Information Increase Compliance?*, 18 CAN. J.L. & JURIS. 95, 96-97 (2005) (citing the work of Professor Dan Kahan).

found that most taxpayers perceive tax evasion as equivalent to minimum wage violations and less serious than other white collar crimes and that M.B.A. students appreciate the seriousness of tax evasion more readily than many tax professors and graduate tax students.<sup>150</sup>

### 1. Increased Complexity Resulting From Patent Issuance

The issuance of tax strategy patents inexorably leads to further complications in tax planning and compliance and provides fodder for the argument that the tax system is gamed. Tax practitioners, in addition to navigating existing tax authority, may have a due diligence obligation to conduct a patent search.<sup>151</sup> If a patent is discovered during the course of the search then the practitioner must grapple with a variety of issues. Does the patent cover the tax strategy that is being contemplated by the taxpayer and, if so, what actions constitute infringement? Infringement could be deemed to occur at the time the tax advisor renders the advice, at the time the strategy is executed, or at the time the tax return is filed.<sup>152</sup> If a particular strategy yields multiyear benefits infringement may continue to occur as long as tax benefits are derived from the strategy. Due diligence not only may be advisable in the discharge of an advisor's professional duties but may also be necessary to avoid potential infringement liability as an infringement "inducer."<sup>153</sup>

Additional complications arise from several questions that tax practitioners will be forced to answer. Should the taxpayer challenge the

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150. See Linda M. Beale, *Tax Advice Before the Return: The Case for Raising Standards and Denying Evidentiary Privileges*, 25 VA. TAX REV. 583, 600-01 (2006).

151. Tax Strategy patents are classified in subclass 36T "Tax Strategies," part of class 705 "Data Processing: Financial. Business Practices, Management, or Cost/Price Determination. Patent classification schedules for class 705 are available at <http://www.uspto.gov/go/classification/uspc705/sched705.htm> (last visited Apr. 10, 2007) It is conceivable that malpractice insurance carriers mandate a patent search. See generally James M. Fischer, *External Control Over the American Bar*, 19 GEO. J. LEGAL ETHICS 59 (2006) (discussing how insurers, among others, have influenced the practice of law in the United States). Note that a patent applicant has a duty of candor and therefore, has an obligation to disclose prior art that is known to the applicant. However, the applicant has no affirmative duty to search for such prior art and is often discouraged from doing so. See *FMC Corp. v. Hennessy Indus., Inc.*, 836 F.2d 521, 526 n.6 (Fed. Cir. 1987). See also John R. Thomas, *Collusion and Collective Action in the Patent System: A Proposal for Patent Bounties*, 2001 U. ILL. L. REV. 305, 315 (2001).

152. Patent infringement arising from the rendering of tax advice implicates issues attendant to the attorney-client relationship. See *infra* notes 235-37 and accompanying text.

153. In addition to the infringer, persons who induce others to infringe on a patent are also liable for infringement. 35 U.S.C. § 271(b) (2006). In order to be held liable under this provision the inducer must have knowledge of the patent at issue and commit a positive act that materially furthers the infringement. See generally *Black & Decker, Inc. v. Catalina Lighting, Inc.*, 953 Fed. Supp. 134, 138 (E.D. Va. 1997).

validity of the patent and, if so, how?<sup>154</sup> Should the taxpayer obtain a license to employ the strategy? Resolution of these issues requires time, money, and perhaps more problematically, may produce different outcomes for similarly situated taxpayers. Patent litigation is very expensive.<sup>155</sup> Some taxpayers will choose to litigate and others, whether due to lack of resources or as a result of a calculated cost-benefit analysis, will forego litigation and negotiate a license. License negotiations result in significant transaction costs and may result in widely disparate outcomes for taxpayers depending on their tax posture.<sup>156</sup>

## 2. Encouragement of Abusive and Aggressive Tax Positions

The issuance of tax strategy patents may contribute to increased non-compliance by further eroding the 'Logic of Reciprocity' that un-

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154. Administrative challenges to patent validity are available through *ex parte* reexamination and *inter partes* reexamination. For various reasons, including estoppel issues, these methods have not proved to be a very effective method of post-grant dispute resolution. See 35 U.S.C. §§ 301-307 (2000); Andrew Kopelman, Note: *Addressing Questionable Business Method Patents Prior to Issuance: A Two-Part Proposal*, 27 CARDOZO L. REV. 2391, 2407-09 (2006). Generally, actions for infringement will elicit an answer from the defendant that denies infringement or challenges the validity of the patent. In some cases, an accused infringer may assert an affirmative defense pursuant to the First Inventor Defense Act of 1999, Pub. L. No. 106-113, 113 Stat. 1536 (1999). See *supra* notes 116-118 and accompanying text. The Supreme Court has recently held that the holder of a patent license may sue to challenge the validity of a patent despite the fact that the license holder continued to pay royalties. The Court reversed a Federal Circuit decision that had held that the payment of royalties precluded the licensee from challenging the validity of a patent because, as long as royalties were being paid, no controversy existed for the court to adjudicate. The Court's decision will allow licensee's to challenge a patent's validity without having to risk a patent infringement claim due to the failure to pay royalties. See *MedImmune, Inc. v. Genentech, Inc.*, No. 05-608, 2007 U.S. LEXIS 1003 (Jan. 9, 2007).

155. Attorney fees, court costs, expert witness fees, and other costs can easily exceed seven figures. A 1999 study conducted by the Intellectual Property Law Association calculated the median cost of patent litigation at over \$2,000,000 in suits where the dollar amounts at risk were between \$10,000,000 and \$100,000,000 and the cost through discovery approximating \$1,500,000. See Jay P. Kesan & Andres A. Gallo, *Why "Bad" Patents Survive in the Market and How Should We Change?—The Private and Social Costs of Patents*, 55 EMORY L.J. 61, 69 n.35 (2006). The American Intellectual Property Law Association recently reported that the typical patent infringement case costs each party \$650,000 when the amount at risk is less than \$1 million. The cost increases to \$2 million per party when the amount at risk is between \$1 million and \$25 million. *Testimony of Professor Ellen P. Aprill of the Loyola Law School (Los Angeles) Before the Subcommittee on Select Revenue Measures of the Committee on Ways & Means, July 13, 2006* (statement of Ellen P. Aprill, Professor of Law, Loyola Law School, citing the AM. INTELL. PROP. LAW ASS'N., REPORT OF THE ECONOMIC SURVEY 22 (2005)). A recent survey of corporate law departments found that intellectual property and patent litigation is high on the list of litigation concerns. See Stephen C. Dillard, *Litigation Nation*, WALL ST. J. Nov. 25-26, 2006, at A9 (discussing the results of the most recent Litigation Trends Survey).

156. For example, the outcome of licensing negotiations and the bargaining power of the parties will be impacted by the profile of the patent holder, the time-sensitivity of the tax strategy in question, and the dollar amount of potential tax savings.

derpins a self-assessed tax system.<sup>157</sup> The ability to patent tax strategies may exacerbate the corrosive influence that abusive tax shelters have had on the polity's respect for the tax system. Under current law taxpayers must provide information to the Internal Revenue Service with respect to reportable transactions.<sup>158</sup> Reportable transactions include "listed transactions,"<sup>159</sup> transactions with contractual protection,<sup>160</sup> transactions that result in losses exceeding pre-defined thresholds,<sup>161</sup> transactions that result in significant disparities between tax and financial statement reporting,<sup>162</sup> and transactions that generate a tax credit from an asset held for a brief period of time.<sup>163</sup> Additional reportable transactions are transactions that are offered to taxpayers under conditions of confidentiality and for which a mini-

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157. See *supra* note 149 and accompanying text.

158. Form 8886, "Reportable Transaction Disclosure Statement," is used to make the required disclosures. This form is to be filed with the taxpayers income tax return for each taxable year for a taxpayer participates in a reportable transaction. Treas. Reg. § 1.6011-4(d)-(e)(1) (2003). Failure to file such disclosures or failure to include required reportable transaction information with the disclosure is subject to penalty. See I.R.C. § 6707A (2006). Moreover, reporting obligations are also imposed on material tax advisors with respect to such transactions as well as a requirement to maintain a list of advisees. See generally I.R.C. §§ 6111- 6112 (2006). The American Jobs Creation Act of 2004, Pub. L. No. 108-357, 118 Stat. 1418 (2004) made significant changes to these provisions. Proposed regulations were recently issued that would implement the statutory changes. See Prop. Treas. Reg. §§ 301.6111-3 (proposed Nov. 2, 2006) (to be codified at 71 Fed. Reg. 64496); Treas. Reg. §§ 301.6112-1 (proposed Nov. 2, 2006) (to be codified at 71 Fed. Reg. 64501). Taxpayers who fail to disclose reportable transactions that result in a substantial understatement of tax are also subject to a 30 percent penalty without the benefit of a reasonable cause exception. See I.R.C. § 6662A(c) (2006); I.R.C. § 6664 (2006). Substantial understatement penalty resulting from disclosed transactions are subject to a 20 percent penalty that may be avoided if certain requirements are met. See I.R.C. § 6664(d)(2)(B)-(C) (2006).

159. A listed transaction is a transaction that is the same or substantially similar to a transaction that the Internal Revenue Service has determined to be a tax avoidance transaction and has identified such transaction in published guidance. Treas. Reg. § 1.6011-4(b)(2) (2003). The penalty for failure to comply with the reportable transaction disclosure rules is increased if the transaction in question is a listed transaction. See I.R.C. § 6707A(b)(2) (2006).

160. A transaction with contractual protection is one for which the taxpayer or a related party has the right to a full or partial refund if the intended tax consequences from the transaction are not sustained or for which the fees are contingent on the taxpayer's realization of tax benefits. Treas. Reg. § 1.6011-4(b)(4) (2003).

161. See generally Treas. Reg. § 1.6011-4(b)(5) (2003).

162. This provision applies only to publicly traded companies and related entities and entities whose gross assets, for financial reporting purposes, exceed \$ 250 million. See Treas. Reg. § 1.6011-4(b)(6)(ii)(A) (2003). Regulations were recently proposed that would eliminate these transactions from the definition of reportable transactions. See AJCA Modifications to the Section 6011 Regulations, Explanation of Provisions, 71 Fed. Reg. 64488 (Nov. 2, 2006). The proposed regulations add another category of transactions to the list of reportable transactions – transactions of interest. See Treas. Reg. § 1.6011-4(b)(6) (proposed Nov. 2, 2006) (to be codified at 71 Fed. Reg. 64488).

163. Treas. Reg. § 1.6011-4(b)(7) (2003).



minimum fee has been paid to an advisor.<sup>164</sup> A condition of confidentiality exists if the advisor places a limitation on disclosure of the tax treatment or tax structure of the transaction to protect the confidentiality of the advisor's strategy.<sup>165</sup> The inclusion of confidential transactions in the category of reportable transactions was a response to certain high profile transactions that proved abusive.<sup>166</sup> For transactions generating the minimum required fees, and otherwise not reportable, tax advisors desiring to maintain the confidentiality of their intellectual handiwork face the prospect of reporting the transaction and its details to the Internal Revenue Service. With patent protection the need for confidentiality would dissipate and the transaction would be immune to the reporting rules.<sup>167</sup>

The ability to patent a tax strategy may result in greater efforts to create tax avoidance transactions. The potential of market control that a patent confers may provide greater incentives for sharp minds to use their creativity to pursue tax structures that they otherwise would find objectionable or not worth their time pursuing. Moreover, the patent holder may market a tax strategy or structure more aggressively to other professionals if the patent provides the holder with a greater level of security that their creation will not be appropriated without compensation. It is also possible that the existence of a patent for the strategy will be explicitly or tacitly used in marketing the strategy. Although the grant of a patent and its attendant presumption of validity do not, for tax purposes, legitimize the strategy for which the patent was granted, it should not come as a surprise if such claims are

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164. Treas. Reg. § 1.6011-4(b)(3)(i) (2003). For purposes of this provision the minimum fee is \$ 250,000 for corporate taxpayers and partnerships and trusts all of the owners or beneficiaries of which are corporations. The minimum fee for all other taxpayers is \$ 50,000. Treas. Reg. § 1.6011-4(b)(3)(iii)(A)-(B) (2003).

165. Treas. Reg. § 1.6011-4(b)(3)(ii) (2003).

166. Perhaps the most prominent example was the tax strategy designed by Ernst & Young for the chief executive officer and the president of Sprint Communications. The strategy, known as the Equity Compensation Strategy, was designed to postpone income taxes on approximately \$ 200 million of compensatory stock option income for thirty years and attempt to convert a portion of that income into capital gains. See David Cay Johnston, *Tax Shelter is Worrying Sprint's Chief*, N.Y. TIMES, Feb. 6, 2003, at C1; Jonathan D. Glater, *Auditor Role in Working for Executives is Questioned*, N.Y. TIMES, Feb. 8, 2003, at C1; Rebecca Blumenstein & Carol Hymowitz, *Inside the Tough Call at Sprint: Fire Auditor or Top Executives*, WALL ST. J., Feb. 10, 2003, at A1. The fact that the tax strategy was designed for two high ranking officers of an audit client of the accounting firm raised concerns about auditor independence and contributed to the prohibition, enacted by the Sarbanes-Oxley Act of 2002, of the provision of certain tax services by independent auditors. See *infra* note 213 and accompanying text.

167. It is possible that, if the Internal Revenue Service perceives that the use of patented tax strategies is compromising its reporting system, the regulations may be amended to require reporting of such transactions.

made or potential licensees are not disabused of such a notion.<sup>168</sup> At a minimum, a firm's patent holdings will signal to the market an expertise that may not be justified. Patents provide a means of publicizing information. Under certain circumstances this function of patents may be more valuable than the substantive rights that flow from the patent. Patent holders may obtain a portfolio of patents to signal information about themselves that would be more expensive to do through other means or use patent documentation as marketing material that carries an aura of credibility.<sup>169</sup>

Two arguments may be made that the granting of patents on tax strategies will result in less output of abusive or aggressive tax strategies. First, the patenting of tax strategies, and its attendant publicity, will shine light upon potentially abusive tax strategies and provide the Internal Revenue Service with information that it may use to combat such strategies.<sup>170</sup> Moreover, the tax shelter registration and list maintenance rules may very well apply to a licensor of patented tax strategies. Although the tax shelter registration rules were not drafted with patented tax strategies in mind the regulatory language is broad enough to potentially encompass licensors of such strategies. Tax shelter organizers are required to register tax shelters with the Internal Revenue Service. The regulations define tax shelter organizers to include any person who discovers, creates, investigates, or initiates the investment.<sup>171</sup> Moreover, the list maintenance rules apply to any person that is required to register a transaction.<sup>172</sup>

Louis Brandeis once said that '[p]ublicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants . . . .'<sup>173</sup> Perhaps it is but only if the item that the disinfectant is meant for is not resistant to it. Congress and the Inter-

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168. An issued patent carries a presumption of validity. 35 U.S.C. § 282 (2000). The presumption of validity may be overcome by clear and convincing evidence of invalidity. *See Nystrom v. Trex Co.*, 424 F.3d 1136, 1149 (Fed. Cir. 2005).

169. *See generally* Clarisa Long, *Patent Signals*, 69 U. CHI. L. REV. 625 (2002).

170. In general, patent applications must be published after the expiration of a period of 18 months from the earliest filing date for which a benefit is sought under Title 35. 35 U.S.C. § 122(b)(1)(A) (2000). However, an applicant may opt out of this requirement by certifying that the invention disclosed in the application has not, and will not, be the subject of an application in another country or under a multilateral agreement that requires publication 18 months after filing. 35 U.S.C. § 122(b)(2)(B)(i) (2000). It is likely that applicants for tax strategy patents will avoid the publication requirement.

171. Temp. Treas. Reg. § 301.6111-1T, A-26 – A27 (1986).

172. Treas. Reg. § 301.6112-1(c)(2)(i) (2003). The list maintenance rules also apply to persons who receive, or expect to receive, minimum fees from the transaction make certain statements concerning the transaction. *See id.*; Treas. Reg. § 301.6112-1(c)(2)(ii)-(iii) (2003).

173. *Buckley v. Valeo*, 424 U.S. 1, 67 (1976) (quoting LOUIS D. BRANDEIS, *OTHER PEOPLES MONEY AND HOW BANKERS USE IT* 62 (Nat'l. Home Lib. Found. ed. 1933)).

nal Revenue Service have for years ratcheted up the penalties for, and imposed ever increasing disclosure requirements on, what are perceived to be abusive transactions.<sup>174</sup> At best, one should retain a healthy skepticism toward claims that advance notice to the government will have a significant impact in reducing abusive transactions. Moreover, it is quite possible that the publicity surrounding the issuance of a patent will allow the strategy to proliferate. As subsequently discussed patents on tax strategies raise unique enforcement issues.<sup>175</sup> Difficulties in enforcing such patents may lead to the appropriation of the patented strategy without compensation.

The second argument that is made in support of the notion that the patenting of tax strategies will result in less output of such strategies is based on the fact that patents create monopolistic markets. The granting of a patent transforms the market for the patented strategy into a monopoly and monopolistic markets tend to produce suboptimal output when compared to output that could be expected to result in a competitive market. In a competitive market the price of an output is determined by the intersection of an upwardly sloping supply curve and a downwardly sloping demand curve.<sup>176</sup> In such a market the output of an individual firm has no effect on price and an

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174. Specific provisions of the Internal Revenue Code were interpreted through the issuance of anti-abuse regulations. See Tanina Rostain, *Sheltering Lawyers, The Organized Tax Bar and the Tax Shelter Industry*, 23 YALE J. ON REG. 77, 95 (2006) (citing to the DEP'T. OF THE TREASURY, THE PROBLEM OF CORPORATE TAX SHELTERS: DISCUSSION, ANALYSIS AND LEGISLATIVE PROPOSALS (July 1999)). In 2000, Temporary regulations were issued that required the registration of confidential tax shelters, maintenance of investor lists, and tax return disclosure of reportable transactions. See Temp. Treas. Reg. §§ 301.6111T-2T (2000); 301.6112-1T (2000); Temp. Treas. Reg. § 301.6011-4T (2000). The reporting requirements were expanded by subsequent regulations. See Temp. Treas. Reg. § 301.6112-1T (2002); Temp. Treas. Reg. § 301.6011-4T (2002). The American Jobs Creation Act of 2004, Pub. L. No. 108-357, § 811-22, 118 Stat. 1418, 1575-87 (2004), further strengthened disclosure requirements, increased penalties for noncompliance, and removed the reasonable cause exception for the imposition of penalties for transactions that were not disclosed. Proposed regulations were recently issued implementing these provisions. See *supra* note 158. The American Jobs Creation Act of 2004 also put to rest any issues regarding the Treasury's authority to regulate the provision of legal advice with respect to tax evasion or avoidance transactions or arrangements. See 31 U.S.C. § 330(d) (2000) (providing that neither this section nor any other provision of law shall be construed to limit the authority of the Treasury to impose standards applicable to the rendering of written advice with respect to certain transactions or arrangements determined to have tax avoidance or evasion potential). The Treasury imposed a due diligence requirement for legal opinions through revisions of Circular 230. See Regulations Governing Practice Before the Internal Revenue Service, 69 Fed. Reg. 75,839 (Dec. 20, 2004).

175. See *infra* notes 184-205 and accompanying text.

176. Increasing quantities of output are demanded as the price of that output decreases, hence the downward slope of an aggregate demand curve on a graph where price is represented vertically and quantity is represented horizontally. Conversely, increasing quantities of output are produced as the price of such output increases. Consequently, the supply curve slopes upward.

individual firm will produce output up to the point where the marginal cost of producing additional output equals the price it can charge for that output.<sup>177</sup> In a monopolistic market the monopolist is the market. Unlike individual firms in a competitive market the output decisions of the monopolist will impact price because the aggregate demand curve is the firm's demand curve. Additional production by the monopolist will lead to progressively less marginal revenue because in order to sell additional product the firm must reduce the price charged to all buyers. As a consequence, marginal revenue for the monopolist is always less than the price received for an additional unit of output. At a certain point marginal revenue will equal marginal cost and production will cease. This invariably results in less output than would have been produced by firms in a competitive market. In markets where the product consists of aggressive or abusive tax strategies suboptimal output may be socially desirable.

However, certain attributes of the market for tax strategy may very well mitigate the effects of monopoly on production. The marginal cost of producing an additional tax shelter is probably close to zero.<sup>178</sup> The point at which the marginal revenue for licensing an additional shelter exceeds its marginal cost may very well be close to the output level that would be achieved in a competitive market. For example, it is doubtful that Microsoft's virtual monopoly on operating systems, which have very low marginal costs of production, has resulted in significantly less operating systems being sold when compared to sales that would have occurred in a competitive market for such systems.<sup>179</sup> More importantly, however, is the ability of the monopolist in the tax strategy market to engage in price discrimination. Price discrimination, the ability to charge different prices to different buyers, mitigates the pricing problem for a monopolist and, in situations where perfect price discrimination is possible, eliminates it entirely.<sup>180</sup> Price discrimination is possible in the absence of transactional transparency and

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177. In a competitive market the demand curve for an individual firm is horizontal. That is, the price is the same regardless of the level of output produced by the firm. In such a market the price of the item is determined by aggregate supply and demand and the output decisions of an individual firm have no effect on price.

178. Costs to develop a strategy may be significant. However, once developed, the marginal cost of producing the shelter is minimal. In this respect the development of tax shelters is analogous to the development of a drug or software product.

179. The marginal cost of producing another copy of Windows XP is minor. The significant costs of production are the sunk costs of research and development.

180. Price differences that reflect varying costs of the output are not discriminatory. For example, volume discounts or price increases for peak time usage may reflect cost differences in supplying the product and, therefore, may not be discriminatory. See RICHARD G. LIPSEY, ET. AL., *ECONOMICS*, 251-255 (10th ed. 1993).

under circumstances under which buyers of the output cannot resell it.<sup>181</sup> Due to the confidential nature of tax information and tax advice the likelihood that the patent holder can engage in price discrimination is high. Consequently, whether a monopolistic market for a tax strategy will result in less use of that strategy is highly questionable.

It is difficult to predict whether the publicity attendant to the issuance of patents will aid the Internal Revenue Service in its enforcement efforts and, therefore, have a chilling effect on the development of abusive or aggressive tax strategies. It is just as likely that the inability to effectively enforce such patents will lead to increased use of such strategies. Moreover, weak enforcement will likely overcome any output reduction caused by the existence of a monopolistic market, if, in fact, the monopolist would otherwise restrict output.<sup>182</sup> The proliferation of tax shelters, their use by high profile individuals and corporations, and their marketing by prominent professional firms in the face of significant legislative and administrative obstacles tends to support a pessimistic opinion of what patented tax strategies will spawn.<sup>183</sup>

### 3. Increased Rent-Seeking and Rent Extraction

It is quite reasonable to expect that tax strategy patents, like tax shelters, will flourish in the interstices of a detailed and complex set of rules.<sup>184</sup> Patents are granted for eligible subject matter that is useful, novel, and nonobvious.<sup>185</sup> It may be reasonably inferred that, in order to meet such requirements, the tax strategy in question will involve the application and interrelationship of complex rules. Patented tax strategies will not be designed for a single taxpayer but for a broad enough market to justify their development costs. A searching inquiry into whether such strategies are consistent with substantive tax princi-

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181. *See id.* at 253.

182. *See supra* notes 180-181 and accompanying text.

183. Although aggressive tax planning has been part of the tax landscape since the tax system's inception the use of abusive tax shelters has become a particularly vexing problem during the past decade. Judicial doctrines emphasizing substance over form and business purpose, the enactment of the passive activity loss rules as part of the landmark Tax Reform Act of 1986, Pub. L. No. 99-514, 100 Stat. 2085 (1986), and increased disclosure requirements and penalties proved little match for market forces. The proliferation of tax shelters coincided with the conversion of corporate tax departments into profit centers, the decline in profitability of audit services and the concomitant movement into tax planning and consulting by the international accounting firms, and a decline in Internal Revenue Service enforcement resources. *See generally* Rostain, *supra* note 174, at 86-92.

184. Many tax shelters involve the application of the statutes and regulations governing partnerships, foreign source income, and foreign persons. These rules are noteworthy for their specificity and complexity. *See* Beale, *supra* note 150, at 587-91.

185. *See supra* note 31 and accompanying text.

ples is beside the point when the facts and circumstances peculiar to an individual taxpayer are unknown. Strategies that meet the patentability standards of novelty and nonobviousness will likely have their genesis in the structural infirmities of the Internal Revenue Code. The business purpose of such strategies will most often be the result of *ex post* rationalization. Resistance to tax simplification and reform is likely to emanate from persons who stand to benefit from the issuance of such patents.<sup>186</sup>

Tax strategy patents are unique in a significant respect from business method patents in general. Their subject matter is made possible, and may be rendered worthless, by legislative action. Tax law is notoriously fertile ground for rent seeking and rent extraction in the political arena. For the past forty years the special interest model has been generally accepted as the best representation of behavior in the political arena.<sup>187</sup> Legislation that affects large segments of a constituency is less susceptible to rent seeking because collective action is difficult due to free rider and coordination problems.<sup>188</sup> Small groups with much at stake tend to overcome these barriers. Rent seeking is most effective when the form of tax in question imposes a heavy burden on a small group. Rent extraction, rent seeking in reverse, is behavior by legislators that generates political donations under threat of eliminating rents. Like rent seeking, such behavior is most effective when a small, highly motivated group, is involved.<sup>189</sup>

One need not be blessed with an inordinate amount of prescience to predict that the ability to obtain patents on tax strategies will provide enormous incentives to undertake rent seeking and extraction activities. A patent holder, or a prospective patent holder, will incur no free rider or collective action problem because she is a monopolist or has the potential to become one. Most, if not essentially all, tax strategies that qualify for patent protection will affect a relatively small group of taxpayers and advisors with significant sums at stake.

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186. The American Institute of Certified Public Accountants (AICPA) has resisted various tax reform proposals that it deemed infringing on a taxpayers entitlement to engage in tax minimization. The AICPA has favored bright-line tests and specific rules over more individualistic fact intensive approaches in combating abusive tax shelters. The accounting profession is a significant participant in the marketing of tax shelters. See generally Rostain, *supra* note 174, at 88-118.

187. McCaffrey & Cohen, *supra* note 137, at 1161.

188. Free riders are persons who receive benefits from an action without incurring the burdens associated with the provision of the benefits received. Free rider problems are common where benefits are available to a large, diffuse group. Coordination problems arise when the costs associated with collective action exceed the benefits of such action. As the stakes increase the benefits of collective action begin to outweigh the costs of coordination.

189. *Id.* at 1175-76.

Rent seeking behavior can take various forms. Lobbyists for potential users of a tax strategy protected by a patent, for example, may lobby for legislative changes that render the patent worthless while maintaining the tax benefits in question in another form. Creative ideas may spawn efforts to enact legislation that will allow such ideas to blossom into patented tax strategies. Legislators may engage in rent extraction by threatening to destroy the legislative underpinning of a patented strategy or, alternatively, threatening not to do so. The common perception that the well-heeled have influence over tax legislation is one factor that has eroded social norms applicable to the voluntary assessment of tax liability. "The first fact of politics is that politicians care about money. A lot."<sup>190</sup> The patentability of tax strategies, by giving the inhabitants of Gucci Gulch and their brethren in Congress another move in their rent seeking-extraction chess match, will contribute to the erosion of social norms regarding tax compliance.<sup>191</sup>

#### 4. Enforcement Issues

Finally, the difficulty of enforcing tax strategy patents will reinforce perceptions that the tax system is unfair and lacks transparency. A loss of privacy is inherent in the collection of information by the government to administer the tax laws. Although the gathering of such information is constitutionally permissible unwarranted disclosures of such information by the government may implicate constitutional issues and do damage to a system that relies heavily on voluntary reporting.<sup>192</sup> In the aftermath of the Watergate scandal and the opprobrium generated by the Nixon Administration's enlistment of the Internal Revenue Service to further its political goals tax returns and tax return information were made confidential.<sup>193</sup> Among others,

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190. *Id.* at 1167.

191. The term "Gucci Gulch" was popularized by two newspaper reporters in a book recounting the passage of the landmark Tax Reform Act of 1986. See JEFFREY H. BIRNBAUM & ALAN S. MURRAY, *SHOWDOWN AT GUCCI GULCH* (1988).

192. See *Whalen v. Roe*, 429 U.S. 589 (1977) (holding a New York state law requiring physicians to report certain information concerning prescription drugs did not violate the constitution). The Court did indicate that constitutional concerns may be implicated if unwarranted disclosures were made or by the existence of a system that failed to contain adequate security against such disclosure. *Id.* at 605-06.

193. See I.R.C. § 6103(a) (2006). Prior to the amendments made to § 6103 by The Tax Reform Act of 1976, Pub. L. No. 94-455, 90 Stat. 1520 (1976), the President had access to tax return information by Executive Order or through regulations approved by the President. The Nixon Administration was not the first administration to use tax information for political purposes. Presidents Kennedy and Eisenhower reportedly were not above using similar tactics. See Cythia Blum, *The Flat Tax: A Panacea For Privacy Concerns*, 54 AM. U. L. REV. 1241, 1269 n.103, 1270 n.108.

no officer or employee of the United States may disclose any return or return information unless specifically authorized by the statute.<sup>194</sup> Statutory exceptions to the confidentiality requirement are limited and include limited disclosures for state tax and state and local law enforcement,<sup>195</sup> disclosures to Committees of Congress,<sup>196</sup> disclosures for statistical use,<sup>197</sup> disclosures pursuant to presidential requests,<sup>198</sup> and confirmation of Presidential appointees to executive and judicial branch positions.<sup>199</sup> Willful unauthorized disclosures are punishable by fines and incarceration and dismissal from office.<sup>200</sup> Moreover, civil actions may be brought against the United States for knowing or negligent unauthorized disclosures.<sup>201</sup> In addition to restrictions on disclosures of returns and return information, legislation protects taxpayers from unauthorized inspection of returns.<sup>202</sup> These anti-browsing provisions were enacted in response to evidence that Internal Revenue Service employees were browsing taxpayer records for no legitimate purpose.<sup>203</sup>

In addition to the confidentiality requirements imposed on the government, much tax advice will be protected from disclosure by attorney-client privilege,<sup>204</sup> work product doctrine protection,<sup>205</sup> and ethical

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194. I.R.C. § 6103(a)(1) (2006). The term "return" is broadly defined to include supporting schedules, attachments, and other supplements to the filed return. I.R.C. § 6103(b)(1) (2006). The term "return information" is also broadly defined and encompasses, in part, the taxpayer's identity, the nature, source, and amount of income, deductions, credits, liabilities, and net worth. I.R.C. § 6103(b)(2) (2006).

195. I.R.C. § 6103(d) (2006).

196. I.R.C. § 6103(f) (2006).

197. I.R.C. § 6103(j) (2006).

198. I.R.C. § 6103(g)(1) (2006). The request must be personally signed by the President and, among other requirements, indicate the specific reason the disclosure is requested. The President must report all such requests quarterly to the Joint Committee on Taxation. *Id.*

199. I.R.C. § 6103(g)(2) (2006).

200. I.R.C. § 7213(a) (2006).

201. I.R.C. § 7431(a)(1) (2006). Executive branch officials are also prohibited, under threat of criminal sanction, from requesting the Internal Revenue Service to conduct or terminate an audit or other investigation. *See* I.R.C. § 7217 (2006).

202. I.R.C. § 7213(a) (2006). Violation of the statute could result in criminal prosecution and the imposition of fines and a prison term of up to one year. I.R.C. § 7213(b) (2006). Moreover, civil damages may be awarded as a result of unauthorized inspection. *See* I.R.C. § 7431(a) (2006).

203. The anti-browsing provisions were enacted in 1997 through the Taxpayer Browsing Protection Act of 1997, Pub. L. No. 105-35, 111 Stat. 1104 (1997). The legislation did not appear to have an immediate effect on such activities. *See* Blum, *supra* note 193, at 1275 n.124 (citing to a report issued by the Joint Committee on Taxation in 2000 that reported the Treasury substantiated 198 cases of unauthorized browsing in the two years following the enactment of the prohibition).

204. Attorney-client privilege attaches to legal advice and is subject to several exceptions. One exception is that attorney-client privilege does not apply to communications relating to tax return preparation. Some courts have held that tax return preparation is not legal advice while



requirements.<sup>206</sup> Moreover, privilege has been extended to accountants and other practitioners before the Internal Revenue Service.<sup>207</sup>

Enforcement of patents will be difficult in this environment. Although it is possible that measures may be taken to achieve broad dissemination of existing patents it is unlikely that the veil of confidentiality surrounding tax returns and tax advice will be lifted to such an extent that patent holders can determine, with any degree of confi-

others have held there taxpayers have no expectation of privacy with respect to information reported on a tax return or have waived the privilege. See Beale, *supra* note 150, at 634-36. The legislative history of The Internal Revenue Service Restructuring and Reform Act of 1998, Pub. L. No. 105-206, 112 Stat. 685, which extended the privilege to non-attorneys, expressly adopted this position. See H. Rep. No. 105-599, 105th Cong. (1998). See *infra* note 199 and accompanying text.

205. See FED. R. CIV. P. 26(b)(3). The work product doctrine protects documents prepared in anticipation of litigation from discovery unless there is showing of substantial need for such documents and that substantially equivalent materials cannot be obtained elsewhere without undue hardship. The Second Circuit has held that the doctrine applies to documents assessing the likely result of expected litigation even though the primary purpose of the documents was to assess the desirability of a business transaction. See *U.S. v. Adlman*, 134 F.3d 1194 (2d Cir. 1998).

206. See, e.g., MODEL RULES OF PROF'L CONDUCT R. 1.6 (2003); MODEL CODE OF PROF'L RESPONSIBILITY DR 4-101 (1980). Ethical rules applicable to certified public accountants also require the maintenance of client confidences. See AM. INST. OF CERTIFIED PUBLIC ACCT. CODE OF PROF'L CONDUCT R 301 (amended 1992).

207. The Internal Revenue Service Restructuring and Reform Act of 1998, Pub. L. No. 105-206, 112 Stat. 685 added § 7525 to the Internal Revenue Code. This provision extends the common law attorney-client privilege to federally authorized tax practitioners. This statutory privilege is narrower, however, than the common law privilege attaching to attorney-client communications. The privilege applies only to tax advice and does not extend to communications regarding criminal matters nor tax shelter promotion activities. Moreover, the statutory protection does not prevent disclosure to federal regulatory bodies other than the Internal Revenue Service. For an analysis of the statute see Matthew A. Melone, *New Privilege and Burden of Proof Rules: Caution is Advisable*, 16 J. TAX. OF INVESTMENTS 237 (1999). The work product doctrine does not apply to accountants' tax accrual workpapers as a result of the decision in *U.S. v. Arthur Young & Co.*, 465 U.S. 805 (1984). Financial statements prepared according to generally accepted accounting principles include accruals for current taxes due and deferred taxes. Auditor workpapers often include a candid analysis of tax positions taken by the client. Despite the Supreme Court's decision in *Arthur Young & Co.*, the Internal Revenue Service does not seek such workpapers as a matter of course. See Ann. 84-46, 1984-18 I.R.B. 18 (April 30, 1984). Several states have enacted accountant-client privilege statutes. For a comprehensive analysis of state law privileges see Denzil Causey & Frances McNair, *An Analysis of State Accountant-Client Privilege Statutes and Public Policy Implications for the Accountant-Client Relationship*, 27 AM. BUS. L.J. 535 (1990). Recent changes to financial accounting reporting rules, effective for fiscal years beginning after Dec. 15, 2006, impose a more-likely-than-not recognition standard for reporting the effect of tax positions on financial statements. Moreover, the new rules impose additional disclosure requirements with respect to income taxes. See ACCOUNTING FOR UNCERTAINTY IN INCOME TAXES - AN INTERPRETATION OF FASB STATEMENT NO. 109, FASB Interpretation No. 48 (Fin. Accounting Standards Bd. 2006). The new rules have generated criticism from business quarters and sought, unsuccessfully, to have the effective date of the rules postponed. See David Reilly, *Accounting Rules Won't Be Delayed*, WALL ST. J., Jan. 18, 2007, at C3; Gretchen Morgenson, *A Tax Secret Emerges From the Murk*, N.Y. TIMES, Jan. 14, 2007, § 3, at 1.

dence, whether, and to what extent, infringement has occurred.<sup>208</sup> It is likely that patent enforcement will be haphazard and depend to a significant extent on the nature of the patent itself, the degree to which patent holders take prophylactic measures,<sup>209</sup> and the integrity of taxpayers and their advisors – a factor that should not be taken for granted. The position taken by one tax planner is instructive:

Until the issue is resolved, tax planners, like myself, face a constant risk that we could infringe someone's patent with an innovative planning technique, unless we do a patent search first, *which we won't, because isn't cost effective and isn't likely to be discovered by the patent holder even if it is infringing.*<sup>210</sup>

The effect that the nature of the patented tax strategy can have on enforcement is illustrated by a pending patent infringement case involving the transfer of compensatory stock options to a grantor retained annuity trust.<sup>211</sup> The transferor owned options on publicly traded stock and the transfer was reported in a filing with the Securities and Exchange Commission. That the alleged infringement occurred in a transaction that was subject to public reporting under the federal securities laws was fortuitous for the patent holder, but it is unlikely that transactions not subject to such reporting would have been detected. The nature of the patent, involving stock options and wealthy individuals, implicated the securities markets and high level executives – usually a trigger for reporting obligations. Most tax strategy patents will not operate in an environment subject to public reporting. “[T]ransparency is quite limited in the area of tax, which

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208. One scholar has proposed the development of an information distribution system to inform tax practitioners of patented tax strategies. See *Statement of Richard S. Gruner, Professor of Law, Whittier Law School, Costa Mesa, California, Testimony Before the Subcommittee on Select Revenue Measures of the Committee on Ways & Means*, July 13, 2006.

209. For example, patent holders may soon be seen lurking the corridors at various tax conferences eager to inform the participants that they hold the patent on the tax strategy on the conferences' agenda.

210. Andrew Oh-Willeke, *Tax Shelter Patent Case Update*, WASH PARK PROPHET, (2006), at [http://washparkprophet.blogspot.com/2006\\_10\\_17\\_archive.html](http://washparkprophet.blogspot.com/2006_10_17_archive.html) (last visited Apr. 10, 2007) (emphasis provided).

211. *Wealth Transfer Group v. Rowe*, No. 3:06cv24 (D. Conn. filed Jan. 6, 2006). Grantor retained annuity trusts are commonly used estate planning vehicles. Such trusts, which are irrevocable, are typically funded by the grantor with assets that are expected to appreciate. The grantor receives an annuity for a term of years with the remainder interest residing with a beneficiary, usually a family member. Because of the retained annuity interest the value of the gift, for gift tax purposes, is determined by subtracting the present value of the retained interest from the value of the transferred property. See generally I.R.C. § 2702 (2006). The discount rate for determining such present value is statutorily established. See I.R.C. § 7520 (2006). It is possible to set the annuity rate to a level that effectively “zero’s out” the remainder interest. See *Walton v. Comm’r.*, 115 T.C. 589 (Tax Ct. 2000). In order for the grantor retained annuity trust to have its intended effect, however, the grantor must outlive the term of the annuity. See I.R.C. § 2036(a) (2006).

remains largely a black box.”<sup>212</sup> It would not come as a surprise if many patent infringement disputes occur between advisors for the same taxpayer, most likely between the attorneys and the certified public accountants.

To many taxpayers patent enforcement will appear to be random or applicable only to those taxpayers unlucky enough to be caught. Taxpayer’s perceptions that the tax system is gamed and subject to manipulation have had corrosive effects on the voluntary compliance system.<sup>213</sup> These perceptions will be reinforced by the existence of patents whose enforcement is perceived to be random, unfair, or subject to manipulation.

### C. *The Illusory Benefits of Tax Strategy Patents*

The patent system is rooted in utilitarian grounds. It is designed to foster innovation at a cost well worth the benefits it generates. Tax law practitioners require no assistance or further incentive to innovate. “The tax bar is the repository of the greatest ingenuity in America, and given the chance, those people will do you in.”<sup>214</sup> The tax law field is abundantly supplied with literature and conferences and staffed with persons motivated by the desire to perform at the highest levels of the profession. Perhaps more importantly, the nature of the practice will assure ample incentives to innovate. Lawyers are duty bound to serve their client. By its nature tax practice involves client money and lots of it.<sup>215</sup> Tax practitioners have innovated since the enactment of the first income tax. In fact, the incentives to innovate in this area of law are so pervasive that the accounting industry has become a major competitor to law firms in serving client needs.

For most of their existence the core service of the large accounting firms was the independent audit.<sup>216</sup> During the 1990s, as competitive pressures continued to exert themselves with greater force on their

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212. Drucker, *supra* note 146, at C3 (quoting Mark Everson, the Commissioner of the Internal Revenue Service, discussing the difficulty of ascertaining a company’s tax position from information provided in public filings).

213. See *supra* notes 144-150 and accompanying text.

214. Beale, *supra* note 150 at 584 (quoting Professor Martin D. Ginsburg of Georgetown University Law Center in a statement before the Subcomm. On Select Revenue Measures of the H.Comm. on Ways & Means, 97th Cong. 90 (1982)).

215. Corporate tax departments have come under increasing management scrutiny and, to a certain extent, have come to be seen as profit centers. See Joseph Bankman, *The New Market for Tax Shelters*, 83 Tax Notes 1775, 1784 (1999).

216. After the post-Enron demise of Arthur Andersen & Co., the large accounting firms are Price Waterhouse Coopers, Deloitte & Touche, KPMG, and Ernst & Young. Collectively, the large firms were once known as the Big Eight, then as a result of mergers, the Big Six, the Big Five, and finally, after Arthur Andersen’s implosion, the Final Four.

audit practices, the provision of tax services became an increasingly important revenue source for these firms.<sup>217</sup> The profit potential in tax services led the firms to actively recruit tax attorneys and recent law school graduates and specialized tax groups were created to develop tax products that would eventually be supported by significant marketing efforts.<sup>218</sup> In the year 2002, the tax service revenue generated by the large accounting firms exceeded one billion dollars.<sup>219</sup> The increasing profitability of such services led to criticism that such services were jeopardizing the independence required of such firms in the conduct of their audits.<sup>220</sup> Much of the Sarbanes-Oxley Act of 2002, passed in the wake of the Enron and World Com scandals, focused on the independent audit function and the provision of non-audit services.<sup>221</sup>

Moreover, the notion that patents are necessary for innovation in the tax law area is belied by fact that restrictions are imposed on tax

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217. Rostain, *supra* note 174, at 89-90.

218. *Id.* at 90-91.

219. *Id.* at 91.

220. According to regulatory filings by twenty-one of the thirty companies whose stock comprise the Dow Jones Industrial Average, almost seventy-five percent of fees paid to accountants in 2001 were for nonaudit services. See Cassell Bryan-Low, *Accounting Firms Are Still Consulting*, WALL ST. J., Sept. 23, 2002, at C1. Significant increases in consulting revenue caused tremendous turmoil within the firms particularly with respect to compensation and governance roles. The increased importance of tax revenues to the profitability of the firms has not, as of yet, led to similar problems. See Cassell Bryan-Lowe, *Deloitte Chief Wrestles to Get Consultants Back in Firms*, WALL ST. J., Aug. 14, 2003, at C1; Reed Abelson, *After Andersen War, Accountants Think Hard About Consulting*, N.Y. TIMES, Aug. 9, 2000, at C1.

221. The legislation, *inter alia*, created the Public Company Accounting Oversight Board (P.C.A.O.B.) and vested it with significant enforcement powers. The legislation also limited the scope of non-audit services that an accounting firm may provide to audit clients, instituted mandatory audit partner rotation, and prohibited accounting firms from auditing a public company if certain officers of that company were employed by the accounting firm during the one year period preceding the audit. See Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, §§ 101-301, 116 Stat. 745, 750-775 (2002) (codified in scattered sections of 15 U.S.C., 18 U.S.C., 28 U.S.C.). The P.C.A.O.B. is not an agency of the U.S. government nor are any members or employees of the P.C.A.O.B. considered officers, employees, or agents of the U.S. government. *Id.* at § 101(b). The Securities and Exchange Commission has oversight and enforcement authority over the P.C.A.O.B. *Id.* at § 107. The P.C.A.O.B. issued rules in 2005, approved by the S.E.C. in 2006, that implement the legislation's prohibition on the provision of non-audit services. Under these rules the provision of tax compliance, tax planning, and tax advisory services is permitted if such services are preapproved by the client's audit committee. However, auditor independence is deemed compromised by the provision of services to an audit client related to the marketing, planning, or opining in favor of the tax treatment of confidential or aggressive tax position transactions or by the rendering of any tax service to a person that is in a financial oversight role at the audit client. See BYLAWS AND RULES OF THE PUB. CO. ACCT. OVERSIGHT BD. § 3, subpart 1, R 3522-24 (2006). See also Matthew J. Barrett, *In the Wake of Corporate Reform: One Year in the Life of Sarbanes-Oxley – A Critical Review Symposium Issue: "Tax Services" as a Trojan Horse in the Auditor Independence Provisions of Sarbanes-Oxley*, 2004 MICH. ST. L. REV. 463, 474-76 (2004).

practitioners in an effort to counter existing incentives. The proliferation of tax shelters and aggressive tax strategies evidenced that incentives for creativity in the tax field were resistant to long-standing judicial doctrines emphasizing substance over form and business purpose, the enactment of the passive activity loss rules as part of the landmark Tax Reform Act of 1986,<sup>222</sup> and increased disclosure requirements and penalties. Temporary regulations were issued in 2000 that required the registration of confidential tax shelters, maintenance of investor lists, and tax return disclosure of reportable transactions.<sup>223</sup> The American Jobs Creation Act of 2004 further strengthened disclosure requirements, increased penalties for noncompliance, and removed the reasonable cause exception for the imposition of penalties for transactions that were not disclosed.<sup>224</sup> This legislation also made clear that the Treasury had the authority to regulate the provision of legal advice with respect to tax evasion or avoidance transactions or arrangements.<sup>225</sup> In addition, the Treasury imposed a due diligence requirement for legal opinions through its revisions of Circular 230.<sup>226</sup>

In contrast to those charged with developing and improving methods of doing business in general the developers of tax strategies have unique incentives that depend not a wit on the ability to obtain proprietary protection for their creations. Significant amounts of money are typically at stake. Along with the tax dollars, the desire of practitioners to maintain or enhance their professional reputations and their fidelity to their client service duties have provided more than ample incentive for innovation in the tax field.

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222. Pub. L. No. 99-514, 100 Stat. 2085 (1986).

223. See Temp. Treas. Reg. § 301.6111T-2T (2000); Temp. Treas. Reg. § 301.6112-1T (2000); Temp. Treas. Reg. § 301.6011-4T (2000). The reporting requirements were expanded by subsequent regulations. See Temp. Treas. Reg. § 301.6112-1T (2002); Temp. Treas. Reg. § 301.6011-4T (2002).

224. Pub. L. No. 108-357, § 811-22, 118 Stat. 1418, 1575-87 (2004). Proposed regulations were recently issued that would implement the statutory changes. See Treas. Reg. § 301.6111-3 (proposed Nov. 2, 2006) (to be codified at 71 Fed. Reg. 64496); Treas. Reg. § 301.6112-1 (proposed Nov. 2, 2006) (to be codified at 71 Fed. Reg. 64501).

225. See 31 U.S.C. § 330(d) (2000) (providing that neither this section nor any other provision of law shall be construed to limit the authority of the Treasury to impose standards applicable to the rendering of written advice with respect to certain transactions or arrangements determined to have tax avoidance or evasion potential).

226. See Regulations Governing Practice Before the Internal Revenue Service, 69 Fed. Reg. 75,839 (Dec. 20, 2004). At least one practitioner has asserted that these regulations amount to an unwarranted regulation of professional speech. See David T. Moldenhauer, *Circular 230 Standard, Legal Ethics and First Amendment Limitations on the Regulation of Professional Speech by Lawyers*, 29 SEATTLE U. L. REV. 843 (2006).

#### D. *Law as Patentable Subject Matter*

Many people, myself included, find it disturbing that a patent may be issued for a tax strategy. After all, a tax strategy involves the application of law and, at an instinctual level, the notion that someone may have proprietary rights to a method of accomplishing an objective that is contained in the statute books runs counter to strongly held notions of fairness. However, a reasoned justification for the reflexive aversion to such patents is difficult to articulate. One may attempt to equate legislation with laws of nature. Such laws exist in the commons and resist propertization. They are discovered, not invented. However, justification of a bar to patents on tax strategies by resort to analogies to laws of nature is not satisfactory for two reasons. First, legislative enactments, quite obviously, are laws of man and not of nature. Secondly, although laws of nature are not patentable, novel or nonobvious uses of the laws of nature or combinations thereof, producing a useful result, are patentable subject matter. Under what rationale could we deny a patent on similarly novel and nonobvious uses of the tax law?

Justification for prohibiting tax strategy patents may be rooted in the belief that all taxpayers are entitled to use all available legal means to minimize their tax obligations. This belief, often referred to as the tax minimization norm, has been famously articulated by Judge Learned Hand. "Anyone may so arrange his affairs that his taxes shall be as low as possible; he is not bound to choose that pattern which will best pay the Treasury; there is not even a patriotic duty to increase one's taxes."<sup>227</sup> In a later case, Judge Hand, in a dissenting opinion, stated that "there is nothing sinister in so arranging one's affairs as to keep taxes as low as possible. Everybody does so, rich and poor; and all do right, for nobody owes any public duty to pay more than the law demands: taxes are enforced exactions, not voluntary contributions. To demand more in the name of morals is mere cant"<sup>228</sup>

This rationale, however, is unsatisfactory even if one accepts the validity of the tax minimization norm.<sup>229</sup> The issuance of tax strategy patents does not prevent taxpayers from using all available means to legally reduce their taxes nor does it reduce the arsenal of tax minimi-

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227. *Helvering v. Gregory*, 69 F.2d 809, 810 (2d Cir. 1934).

228. *Comm'r. v. Newman*, 159 F.2d 848, 850-51 (2d Cir. 1947) (Hand, J., dissenting).

229. It has been argued that the notion that taxpayers are entitled to use all available means to minimize their taxes has contributed to the proliferation of tax shelters and aggressive tax strategies and has had a profoundly negative effect on the reputation of the tax bar. See *infra* notes 162-175 and accompanying text.

zation strategies that may be employed. Such patents require a taxpayer to pay someone for the privilege of engaging in tax minimization. To date no one has asserted that all taxpayers must have equal access to tax minimization techniques. Such an assertion would be tantamount to a call for equal access to good tax advice. Common sense informs us that taxpayers with greater resources have access to the best tax lawyers. I see no principled distinction between the payment of exorbitant hourly rates to a good tax lawyer and licensing fees to a patent holder.

The solution to the problem caused by the possibility that a patent holder would refuse to license the strategy to a taxpayer can be found by analogy to similar problems encountered by the issuance of patents on inventions that implicate industry standards. Patent rights are vital to an innovation that becomes a *de facto* industry standard. *De facto* standards have their genesis in the marketplace and typically arise in markets with significant network externalities that result in a direct correlation between the value of a product and the number of users of a product.<sup>230</sup> Examples of such standards include the Windows operating system and the QWERTY keyboard layout.<sup>231</sup> The availability of patent protection is particularly important to innovations that are capable of becoming *de facto* standards in the industry in question.<sup>232</sup>

The issuance of patents for innovations that implicate government—mandated standards — *de jure* standards — has, however, spawned significant criticism.<sup>233</sup> Some commentators have urged that patents not be issued for such innovations, while others have proposed that such standards be treated as “essential facilities” under the anti-trust laws, thereby requiring the patent holder to provide access to the patented invention on nondiscriminatory terms.<sup>234</sup> In certain situations involving public health and welfare standards the courts have refused to enforce intellectual property rights and, with respect to military procurement, the United States was entitled to procure the technology in question on a nonexclusive, royalty—bearing basis.<sup>235</sup>

The refusal by a patent holder to license a tax strategy is not quite the same as the refusal to license technology that is required to meet a governmentally-imposed standard. A taxpayer is not required, by law

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230. See Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 481 (1998).

231. See Mueller, *supra* note 6, at 633 n.52.

232. *Id.* at 652.

233. Industry standards promulgated by industry groups, as opposed to government promulgated standards, implicate similar issues but with less force. See *id.* at 664-69.

234. *Id.* at 655-56.

235. *Id.* at 660-62.

or regulation, to implement a particular tax strategy. However, if, as a matter of public policy, it is believed desirable for all taxpayers, subject to their ability and willingness to pay, to have access to a particular method of structuring their financial affairs to achieve a desired tax result, then precedent exists for achieving this aim.

To this point, it appears there is nothing particularly unique about tax strategies that would support a non-utilitarian justification for denying them subject-matter eligibility. Yet, an unshakeable sense of uneasiness surrounds the possibility of granting a person a proprietary interest over the use of legislation, however novel and non-obvious. The ability to obtain patents on tax strategies commodifies the law and treats it no differently than a process for handling customer orders or a tool that is instrumental in a manufacturing process. However, law is an achievement and represents:

[T]he final settlement of contested issues . . . with a view toward enabling coordinated action in our highly complex, pluralistic society. . . . [T]he function of law is to secure the conditions necessary for cooperation and the realization of collective goods, notwithstanding deep and persistent disagreements over values, ends, conceptions of the good, and the application of moral principles to practical situations.<sup>236</sup>

In a representative democracy, the law is created for the polity as a whole and performs distinctive work. The law in such political systems is “a just and reasonable expression of the public will, and of government, as instituted by popular consent and for the general good . . . .”<sup>237</sup> Effective legal rules are seen as legitimate in and of themselves; they provide for the ordering of resources and the provision of collective goods by precluding resort to non-legal principles that resulted in the very disagreements the law was meant to resolve. That the law belongs to the commons is a notion recognized long ago by Thomas Aquinas. “The law is nothing else than an ordinance of reason for the common good, promulgated by him who has care of the community.”<sup>238</sup> The fact that the law, tax law especially, has grown into a colossus of such Byzantine complexity that would allow a person to assert, with a straight face, that she invented a strategy worthy of patent protection is an indictment of the legislative process.

The unique nature of law is evidenced by the responsibility of the legal profession to the institutions of law. The American Bar Associa-

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236. W. Bradley Wendel, *Professionalism As Interpretation*, 99 Nw. U. L. REV. 1167, 1169, 1208 (2005).

237. *Hurtado v. California*, 110 U.S. 516, 532 (1884).

238. AUSTIN FAGOTHEY, S.J., *RIGHT AND REASON* 108 (The C.V. Mosby Company 6th ed. 1976) (quoting ST. THOMAS AQUINAS, *SUMMA THEOLOGICA* I-II, q. 90, a. 4).



tion has recognized the unique and varied responsibilities of tax lawyers.<sup>239</sup> In addition to functioning as client representatives, lawyers are also officers of the legal system.<sup>240</sup> These responsibilities are the cause of the angst suffered by the tax bar over its role in the proliferation of tax shelters. Members of the tax bar and legal scholars have challenged the "tax minimization" norm that pervades tax practice and have attacked hyper-textual approaches to tax law interpretation.<sup>241</sup> One scholar posits that tax shelter reform efforts have been driven, in part, by segments of the bar that wish to reassert their authority as guardians of the tax system.<sup>242</sup>

In addition to commodifying the law, patents on tax strategies present a significant infringement on the lawyer-client relationship. Various infringements exist on a lawyer's autonomy to serve her client. As officers of the court, lawyers are subject to control by the judiciary. Professional codes of conduct limit lawyers' autonomy, as do statutes that protect the public from unfair business practices.<sup>243</sup> The Sarbanes-Oxley Act of 2002 ordered the Securities and Exchange Commission to issue regulations that address a lawyer's obligation to report material violations of securities law to certain committees of the client's board of directors or to the full board.<sup>244</sup>

Lawyers also receive no special exemptions from the application of the plethora of statutory requirements that deal with discrimination, workplace safety, pensions, and myriad other issues affecting businesses in general. Insurers also exercise considerable control over lawyers by requiring, as a condition to the issuance and maintenance of insurance, the implementation of certain administrative or managerial procedures in the running of the insured practice.<sup>245</sup> However, the limitation imposed by the existence of patents is unprecedented.

239. LISH WHITSON, TASK FORCE ON THE MODEL DEFINITION OF THE PRACTICE OF LAW STANDING COMMITTEE ON CLIENT PROTECTION 6-7 (Am. Bar Assoc. 2003), available at [http://www.abanet.org/cpr/model-def/taskforce\\_rpt\\_803.pdf](http://www.abanet.org/cpr/model-def/taskforce_rpt_803.pdf) (last visited April 10, 2007).

240. *Id.* See also MODEL RULES OF PROF'L CONDUCT 1.1 pmbl. (2003) and Eugene R. Gaetke, *Expecting Too Much and Too Little of Lawyers*, 67 U. PITT. L. REV. 693 (2006).

241. See Beale, *supra* note 150, at 586-603; Wendell, *supra* note 236, at 1211-18; and Mortimer Caplin, *Special Feature: The Tax Lawyer's Role in the Way the American Tax System Works*, 24 VA. TAX REV. 969 (2005).

242. Rostain, *supra* note 174, at 113-14.

243. Statutory limitations may be directed specifically at lawyers. See 49 U.S.C. § 1136(g)(2) (2000) (prohibiting lawyers from making unsolicited contact with survivors or victims' families for 45 days after an airplane accident).

244. Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 784 (2002) (codified at 15 U.S.C. § 7245 (2006)).

245. See generally James M. Fischer, *External Control Over the American Bar*, 19 GEO. J. LEGAL ETHICS 59, 63-95 (2006) (discussing various "best practices" that insurers insist the insured practice implement, such as the use of written retainers, institution of conflict-checking

Unlike the aforementioned limitations, this limitation is both nonconsensual and imposed by a private citizen. A lawyer's response to a client that "my best legal advice is owned by someone else" is plausible and would be accurate.

#### IV. CONCLUSION

Tax strategy patents are subject to many of the criticisms directed toward business method patents in general. In certain respects, patents on tax strategies suffer less from the alleged infirmities applicable to business method patents as a class. However, tax strategy patents merit little, if any, of the utilitarian-based justifications that underpin the issuance of patents. Incentives for innovation in the tax field are plentiful and, in this respect, little is to be gained by the issuance of patents. The costs of such patents, however, are significant. Increased complexity, encouragement of abusive and aggressive tax positions, increased rent-seeking and rent extraction, and uneven enforcement are likely to contribute to the polity's sense that the tax system is unfair and arbitrary. In light of the dubious benefits to be obtained from such patents, these costs are unacceptably high, particularly when one considers the importance of the tax system and its heavy dependence on voluntary taxpayer compliance. Moreover, such patents, in effect, treat the law similarly to other impediments or obstacles faced by business, thereby ignoring the unique nature of the law. Discerning whether an invention merely facilitates the employment of tax strategies or monopolizes tax strategies may prove difficult. Line-drawing, however, is often difficult and, if such difficulty had regularly been used as a reason not to act, the statute books would be much less voluminous.

